Drug & Cosmetic INDUSTRY

JANUARY, 1942

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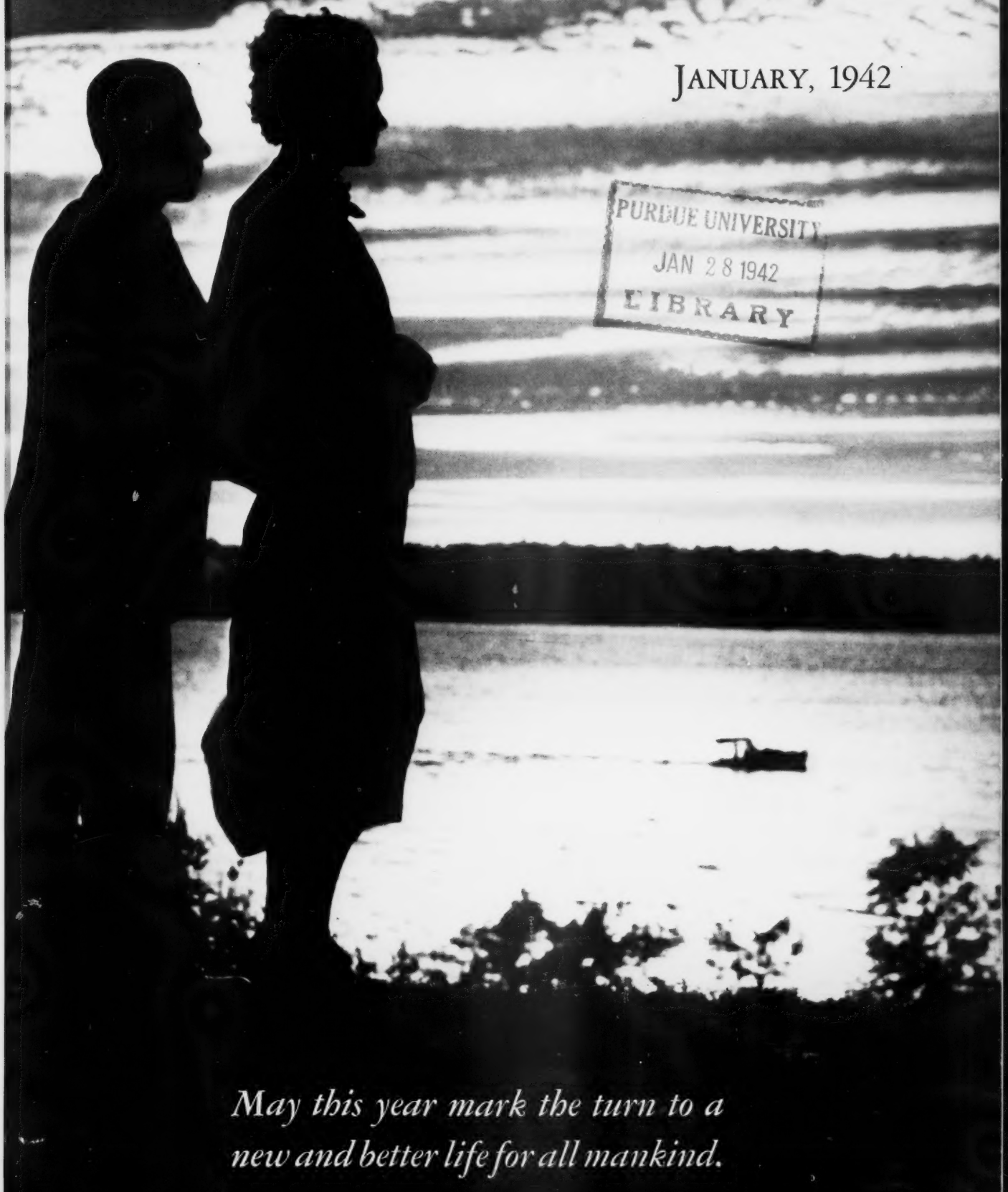

May this year mark the turn to a new and better life for all mankind.

WHETHER IT'S

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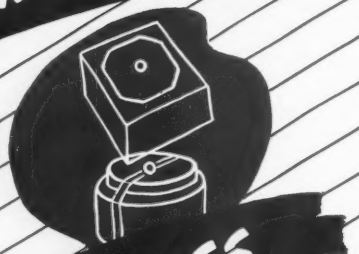

COSMETICS

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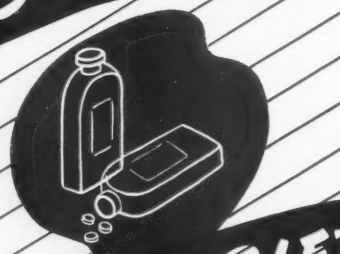

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Grade	Rattle	Flow	2 Hour	Final	Drop Density	
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Light	20-30	27-40	45-70	40-55	.550-0.400	34.3-25.0
Medium	17-23	19-27	25-45	24-40	.675-0.550	42.1-34.3
Heavy	15-17	15-19	20-25	19-24	.800-0.675	49.9-42.1
Extra Heavy	11-15	11-15	15-20	15-19	.950-0.800	59.3-49.9

*Testing methods as shown in our book "Precipitated Chalk for American Industry", copy of which is available upon request.

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Drug & Cosmetic INDUSTRY

JANUARY 1942

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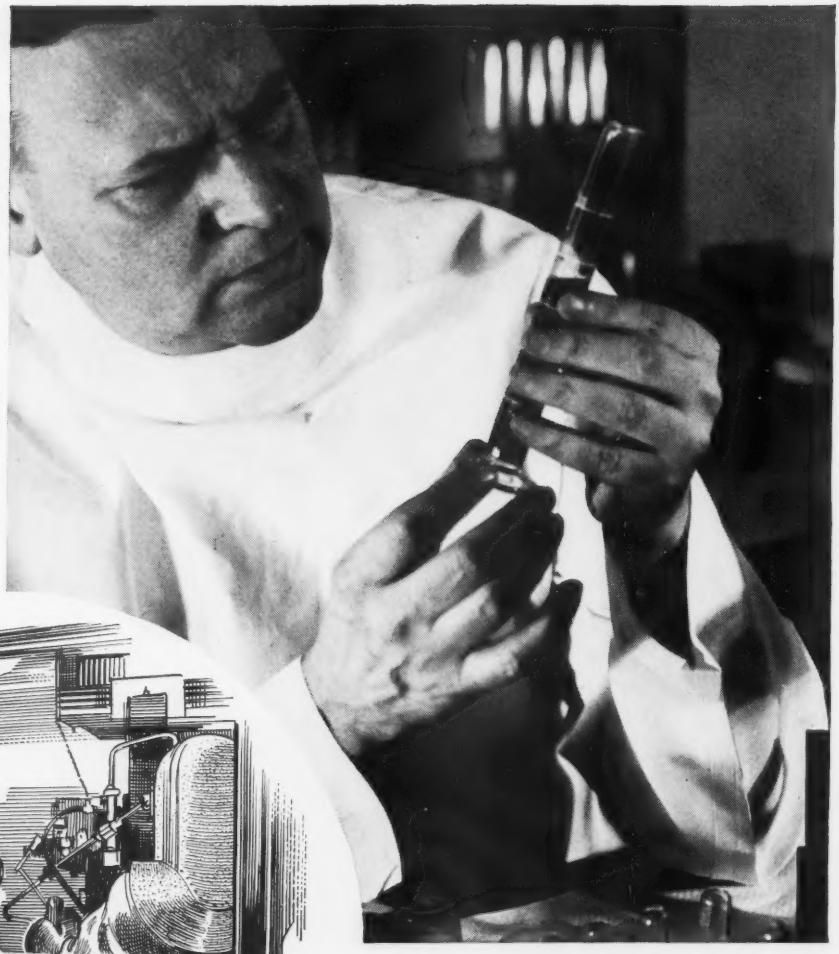

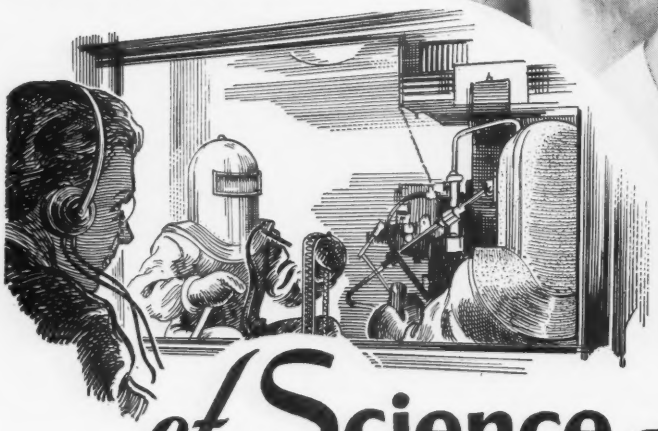

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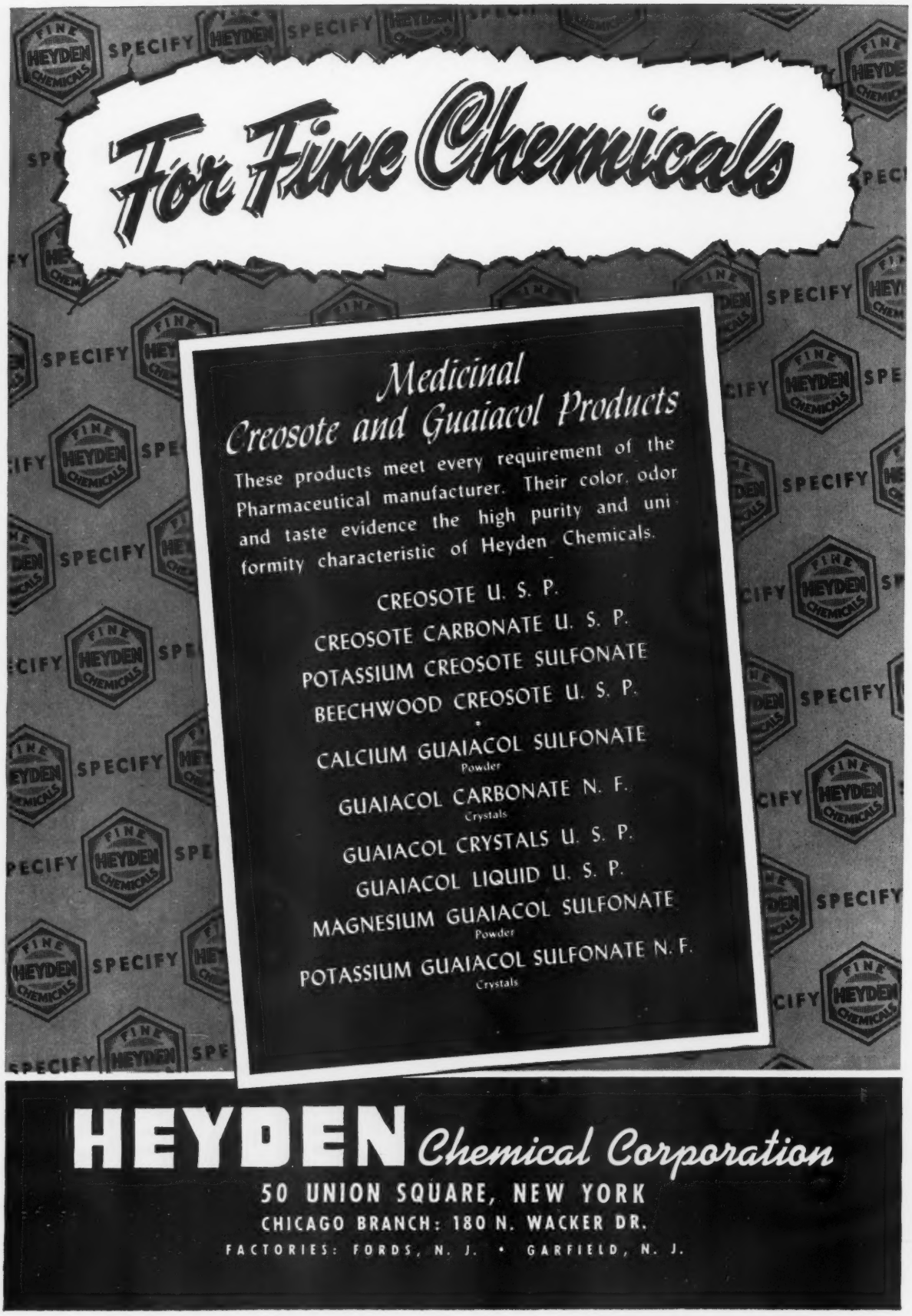
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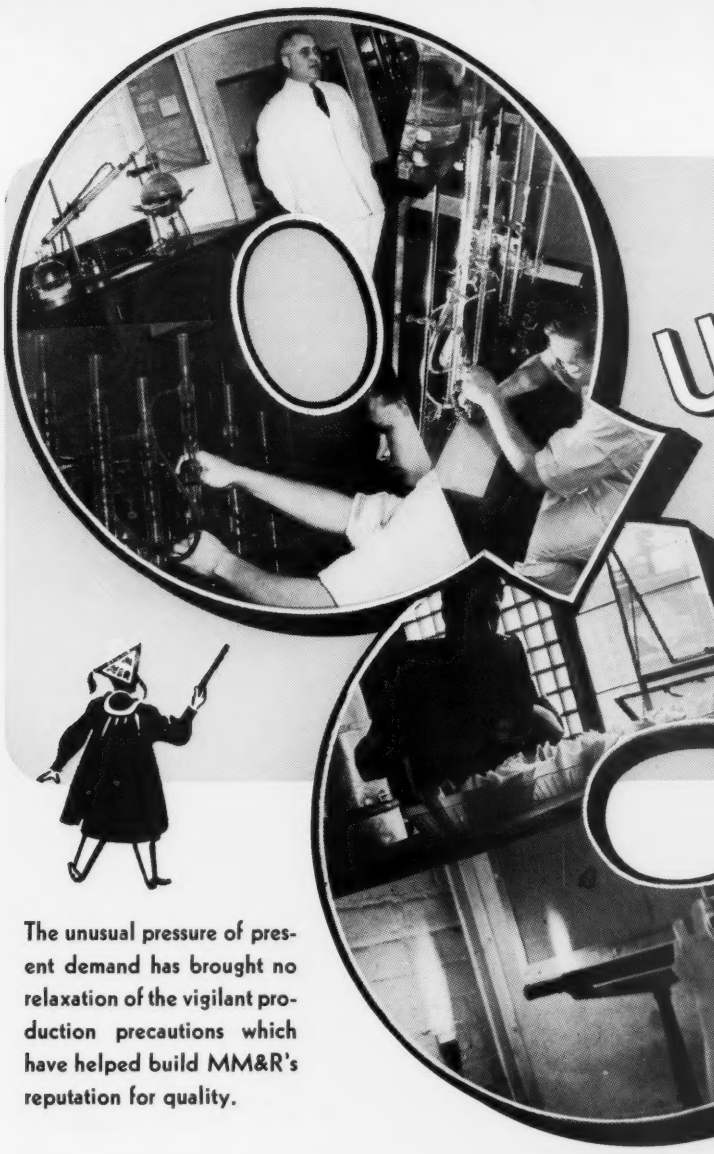

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INSIDE NEWS

JANUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

National's Research Department Tackles "Panelling" Problems

Probably everyone has, at some time, seen panelled cans. They are objectionable to packers, largely because such cans are unsightly. A can is called panelled, when the sides are drawn in at one or more places, so that the shape of the can is distorted and the sides are no longer parallel. Panelling results from inability of the can body to withstand the atmospheric pressure on it while there is a vacuum on the inside of the can. This vacuum, normally present in filled processed cans, lowers the resistance of the can body to atmospheric pressure, and therefore sensitizes the body to external shock in handling.

Cans may panel because of the build up of an abnormally high vacuum due to improper packing methods. Or cans of normal resistance may panel because of abnormal conditions of handling, including exposure to low temperatures. In shipment cans frequently receive blows which should panel any can, particularly if the vacuum is temporarily increased by exposure of the canned product to low temperatures. However, such conditions are not normal.

A can should be constructed to withstand normal conditions of packing and handling and here, the first, but not the only matter of importance is the weight of the plate. There are various weights of plate, and various sizes of cans, but the selection of the plate weight and other physical properties are not left to guess-work, or even to the valuable guidance of practical experience.

For selecting the proper weight of plate, as one of the first considerations to prevent panelling of a can, the apparatus pictured at right has been devised through the aid of Research: (52)

The operator merely places a sealed empty can of known plate weight in a sealed chamber, and applies hydraulic pressure to the can. He then watches the gauge as the pressure increases, until the needle stops and drops back. At this point, the can wall resistance starts to break down, and panelling starts. From the pressure, the operator calculates the can resistance to vacuum and this figure, with certain other correlated data, enables him to select plate of the proper weight for the size can he is studying. RESEARCH IS ORGANIZED THINKING.

Something New for '42

National's Chicago Plant Nearing Completion

National Can's new manufacturing plant is rapidly nearing completion. It will be in service at the start of the 1942 season, supplying cans to the trade.

Located in the heart of the strategic Chicago area at West 51st Street and South Austin Ave., National's new plant is accessible to the main highways and railroads of the nation's greatest food-growing region.

It is another strong link in National Can's expanding chain of modern manufacturing plants. Dedicated to the many canners who are part of the National family, this new unit will help them meet the increasing responsibilities of supplying the food requirements of a nation at war. (53)

Anti-Corrosive Paint and Blitzed Machinery

In England, immediately after a blitz, anti-corrosive paint is now being sprayed on machinery of all kinds which has become wet or covered with debris. This is sprayed among the vital parts of the machinery by stirrup pumps, using the fine jet. Anti-corrosive fluids can be easily removed and machines put in running condition with a minimum of delay. This procedure is saving machinery which would rust and deteriorate before the salvage

(Advertisement)

BY
NATIONAL CAN

JANUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

department could remove it from the gutted premises. (54)

Sleepy Vegetables for Canning

Believing that it will be possible to keep vegetables fresh longer in storage, research men at an agricultural experiment station are conducting experiments with methods of "putting the vegetables to sleep." The procedure is similar to that used with apples. The vegetables are stored in an atmosphere containing controlled proportions of oxygen and carbon dioxide. Fruit will last for a year or more in such an atmosphere, since it is a living thing and takes in oxygen and gives off carbon dioxide. But the experiments have already revealed a significant difference between fruit and vegetable storage. A high carbon dioxide content in the storage room inhibits the "breathing" process of apples, but with vegetables it's just the opposite. For this reason it is removed from the air as soon as it is given off. But when the content of oxygen in the air is lowered from the normal amount of 21 percent to 2 to 5 percent, the vegetables "go to sleep" just as if they were kept in cold storage. The rate of the life processes is reduced to one half, which means that without a change in temperature the storage period could be doubled. Vegetables kept under a low-oxygen atmosphere maintained a high sugar content and a good flavor. And with this method of storage a high humidity can be maintained so that there is little moisture loss. (55)

Synthetic Pine Oil

A new process for the production of synthetic pine oil from turpentine gives a product of substantially the same chemical and physical properties as natural pine oil. This new source will aid in satisfying current increased demands due to defense uses.

Special procedure is necessary in the manufacture of soaps from low grade fats and hard water. The use of sodium silicate with a high SiO_2 content increases the specific gravity of the amino acid molecule so that the usual salting out process is successful in eliminating the excess impurities.

A new material is being studied which will lend germicidal properties to soaps, while at the same time avoiding the disadvantages of toxicity, discoloration, odor, etc., commonly associated with use of germicidal ingredients.

A new method has been offered for the testing of water soluble and water miscible fungicides used in the prevention of the spread of athlete's foot. (56)

Two Years From Seeds to Fruit

Two years from peach seeds to fruit bearing trees! Old Mother Nature's ordinary methods of growth have been speeded up in a series of experiments with embryo culture, recently conducted in California.

The experiments were conducted over a five-year period. Over 5,000 cross pollinated seedlings were grown, most of which were embryo cultures.

Peach seeds were cracked and the kernels removed. These embryos were grown in a nutrient solution of agar, sugar and Vitamin B_1 for two or three weeks. When large enough to transplant, they were placed in clean, washed sand. Three weeks later they were transferred to pots and in nine months to the field.

When this routine is followed, it takes approximately two years for the peach seed to become a fruit-bearing plant. It also results in a much higher percentage of germination of most peach crossed varieties. (57)

Huge Quantities of Paint for Minesweepers

According to reports from Canada their tiny minesweepers alone require 516 gallons of paint for protection against the elements. This quantity includes 20 gallons of red oxide paint, 83 of red lead, 10 of tinting colors, 78 of aluminum paint, 10 of boot topping, 45 of black (non-corrosive), 20 of anti-fouling paint, 100 of battleship grey (marine paint), 50 of flat white, 40 of semi-gloss enamel (interior) and 60 of cork paint. (58)

Lactic Acid from Grapefruit Juice

Discovery of a practical method of making lactic acid from grapefruit juice has been announced by one of the research laboratories of the U. S. Department of Agriculture. Screened grapefruit juice is first treated with calcium carbonate, precipitating the citric acid. The juice is then heated rapidly to 105 deg. F. and allowed to ferment. A little calcium carbonate is added to precipitate out all of the citric acid remaining. And finally the juice is concentrated and the crystals treated with dilute sulphuric acid. The result is said to be pure lactic acid. (59)

Paint Helpful in Blackout

London motorists paint bumpers, fenders and edges of their running boards white to serve as a traffic safety measure during blackouts. To retain the advantages of traffic lights, yet increase the effectiveness of the blackouts, all but a small portion of the glass lenses are obscured with paint. (60)

Technical Topics

PROPYLENE GLYCOL is not harmful when used in flavoring and other foodstuffs, according to a recent ruling by the Food and Drug Administration. Careful investigation has not indicated that there are any harmful effects in the amounts used in foods. (61)

A PASTEURIZER for liquid foods which very quickly brings the product up to pasteurizing temperature without utilizing a high-temperature heating medium has been invented. Heat is applied by spraying hot water against the sides and bottom of a vessel containing the product to be pasteurized, the product being agitated to speed the heat transfer, when the spray is cut off, heating stops completely, avoiding overheating. (62)

STRONTIUM SULPHIDE is proving popular as a phosphorescent material in the manufacture of luminous paints in Britain. The strontium sulphide compositions are preferred to the zinc and calcium sulphide types of phosphorescent materials, it is declared, since they can be made to give a more persistent and more visible blue-green glow. The most satisfactory means in which the strontium sulphide luminous compositions may be utilized, it has been found, is to enclose them between sheets of glass, and waterproof the edges of the sandwich thus formed. Compositions applied as paint in the regular manner have been found to lose luminescent efficiency after a short exposure to the weather. (63)

A PERFUME OIL extracted from coffee-flowers was among the tropical crop experiments described before a recent Puerto Rican scientific agriculture meeting. Samples of the oil were reported as having been highly praised by essential oil dealers in a "blindfold" test. (64)

MICA POWDER, talc, fish scales, and similar scaly substances insoluble or only sparingly soluble in the solvents used in paint removers are suggested by a new British patent for use in the latter type of products, to retard evaporation of the volatile solvents and so facilitate treatment of large areas and promote a more complete action by the paint remover. The scales form a "skin" which retains the solvents, it is stated. (65)

For further information on any of these articles write to National Can Corp., 110 E. 42nd Street, New York City.

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3 TIMES IN LIFE

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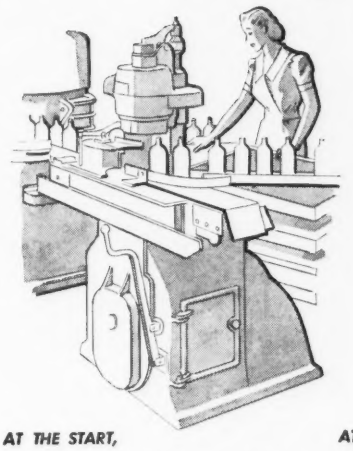

AT THE START,
when your product is being sealed, an Alseco Sealing Machine can speed up your line, reduce shutdowns, cut costs. Machine dependability is an important part of "Packaging Insurance," sealing by the Rolled-On Method.

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when your package reaches the retail store, an Alseco R-O (Rolled-On) Seal safeguards the product from evaporation, spoilage or leakage. Because of the Rolled-On Method, leakers and breathers are exceedingly rare.

AT THE FINISH,
when your package reaches the consumer, the tailor-made R-O Seal is easy to open and the contents are just as you made them. Because of the Rolled-On Method, you gain consumer good will and repeat sales.

Another benefit you can have with "Packaging Insurance" is protection against tampering. The Rolled-On Method offers several effective ways of preventing adulteration, substitution and pilfering.

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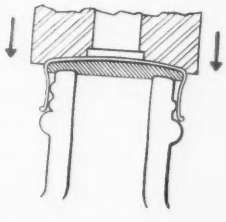
ALSECO SEALS

* HOW YOU GET "PACKAGING INSURANCE" BY THE ROLLED-ON METHOD OF SEALING



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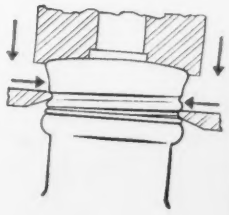

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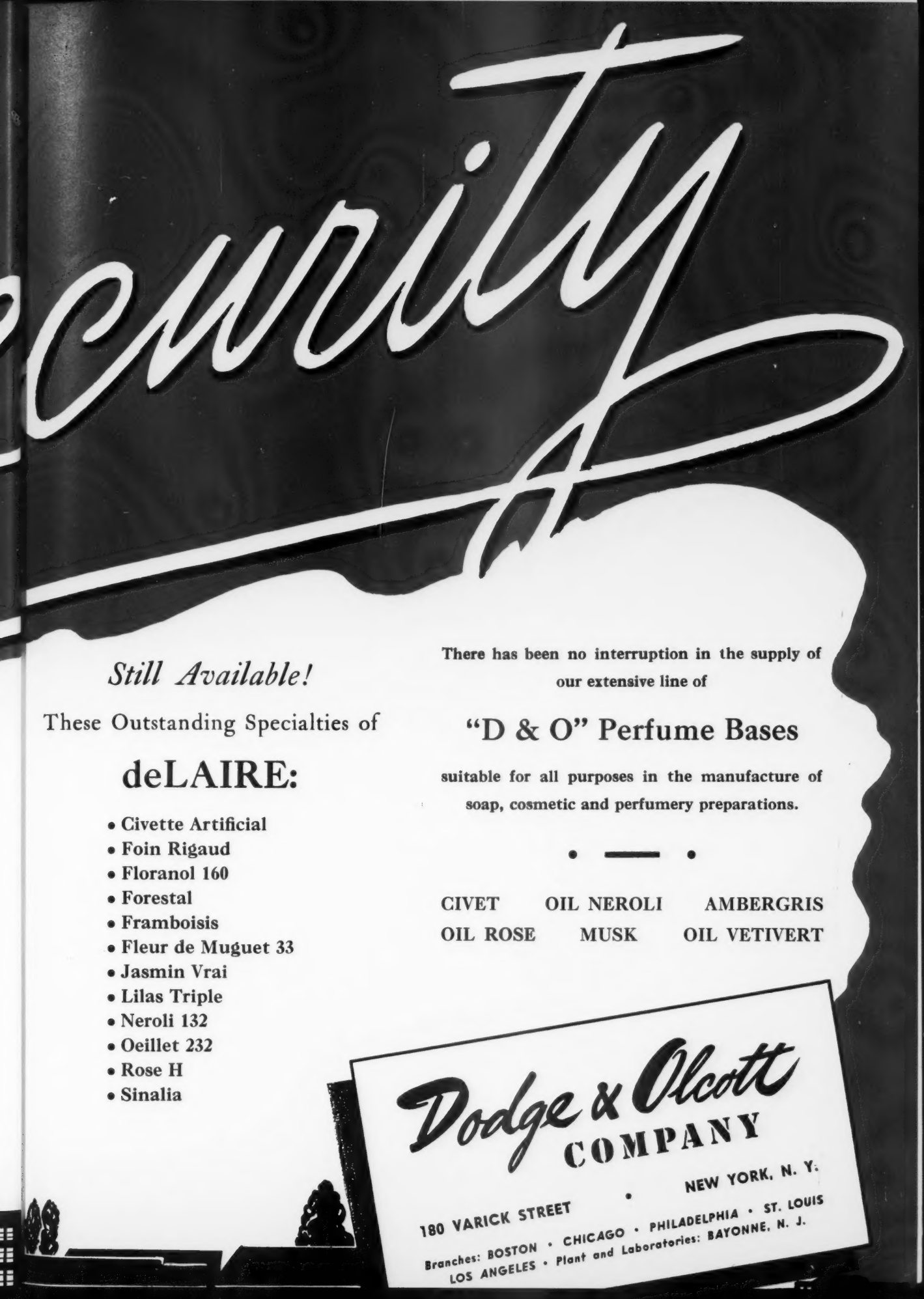
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Eau de Cologne Oils
JUCHTEN

Uniting the modern Russian and Spanish leather notes with the fresh cologne fragrance. Much in demand.

Eau de Cologne Oils
PARIS

French perfume compounds with a refreshing citrus top note, which meet the demand for modern sophisticated colognes.

Eau de Cologne Oils
FLORAL

The light floral top note gives varied charm to the cologne undertone. Among the most popular are our Gardenia, Lilac, and Fougere.

WRITE FOR SAMPLES, GIVING THE TYPE OF COLOGNE IN WHICH YOU ARE INTERESTED

SCHIMMEL & CO., INC.

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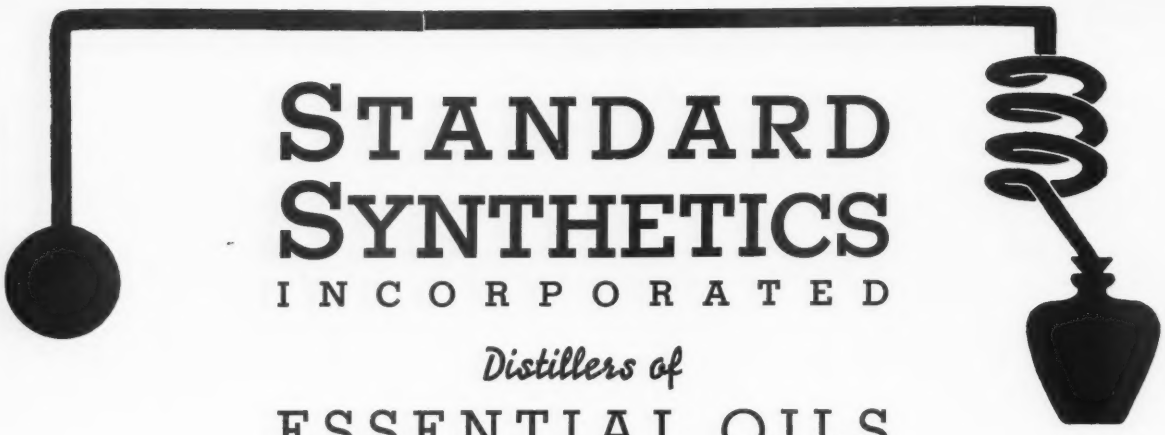
Chicago • Cincinnati • Cleveland • Los Angeles • Minneapolis • New Orleans • Seattle • St. Louis



STANDARD SYNTHETICS
INCORPORATED

Distillers of
ESSENTIAL OILS

Manufacturers of
AROMATICS
PERFUME BASES
TERPENELESS
ESSENTIAL OILS

SUPPLIES

are difficult —
sometimes impossible —
to obtain

In consequence we have at times had to say "no" to your enquiries. We ask you to believe that this is regrettable to us, no less than to yourselves. To new enquirers, we have a special word. The backbone of any business—yours and ours alike—is the regular customer. We have a certain obligation to our old friends, and we need their continued patronage for our own welfare, so you will understand if we give them a certain measure of preference. During the past months we have, nevertheless, had the pleasure of serving many new friends. We hope during the coming months to add to their number. So we invite you, old friends and new alike, to continue to send us your enquiries. It will not be our fault if you are unable to get your supplies.

SAMPLES SUBMITTED GLADLY. SEND US YOUR PROBLEMS.

STANDARD SYNTHETICS, INC.

119 WEST 25th STREET **NEW YORK, N. Y**

Branches in Chicago — Kansas City — San Francisco — Boston

MERCK

—a recognized and dependable source of fine cosmetic products

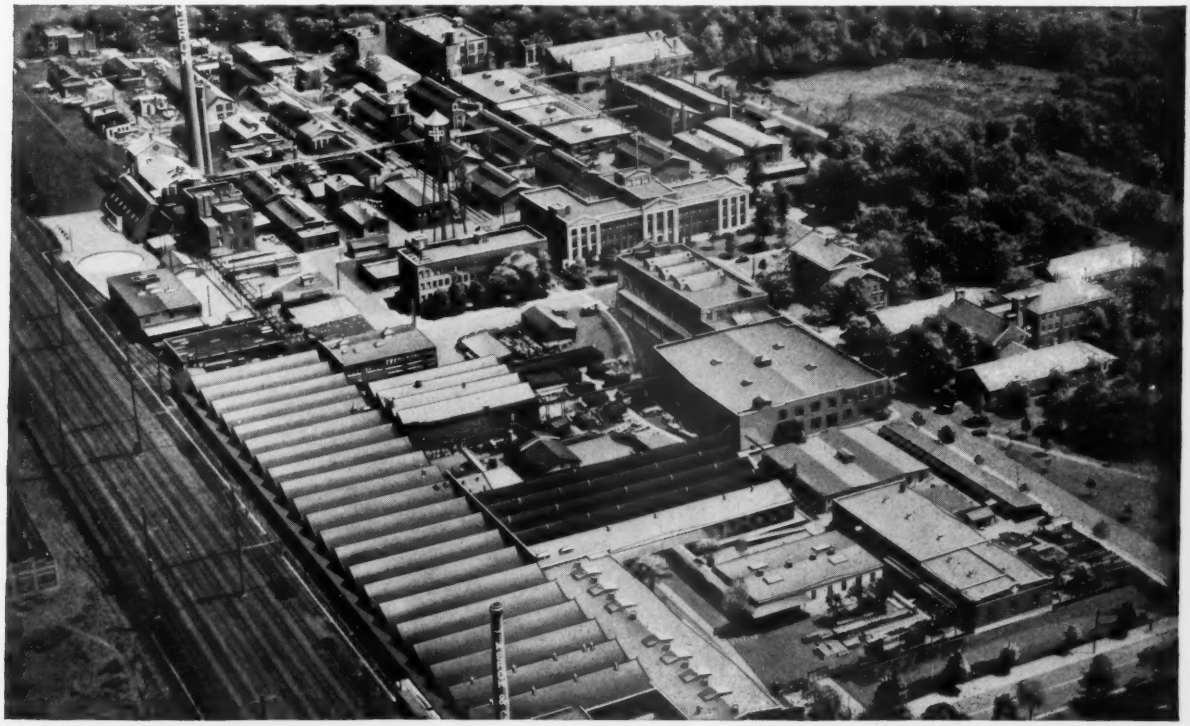
The importance of high-quality ingredients is recognized by manufacturers of successful cosmetic preparations—those purchased by "brand name" because satisfactory results have created a demand market for such products and steady repeat sales.

Consumer acceptance of cosmetic preparations depends in large part on *quality, uniformity* and *reliability.* Leading manufacturers incorporate these sales-building features into their preparations by using Merck products.

The high recognition accorded to Merck Chemicals throughout America is proof of how well the House of Merck has kept faith with those whom it serves. Today, 1500 products are supplied to physicians, dentists, veterinarians, pharmacists, chemists, laboratories and various branches of industry.

The Merck policies of scientific research and rigid laboratory control for purity and standards of quality and uniformity . . . fortified by a rich tradition of experience and modern production facilities . . . assure continued leadership in present fields of chemistry, as well as in those still to be explored and conquered.

We invite you to consult us regarding your manufacturing problems and requirements.



MERCK & CO. Inc. *Manufacturing Chemists* RAHWAY, N. J.

New York • Philadelphia • St. Louis • *In Canada:* MERCK & CO. Ltd., Montreal and Toronto

1942!

A NEW YEAR
A NEW IDEA

Until you have seen our PRICE LIST for 1942 you have missed the latest development in the editing of price lists throughout the history of our industry.

You should receive your copy during January. Please advise us if it does not reach you.

George Lueders & Co.

427 WASHINGTON STREET, NEW YORK, N. Y.

BRANCHES: CHICAGO • SAN FRANCISCO • MONTREAL

REPRESENTATIVES: ST. LOUIS—PHILADELPHIA

Essential Oils ◆ *Aromatic Chemicals* **Established 1885** *Perfume Materials* ◆ *Colors*

A "Stopper" FOR SHOPPERS

COLOR makes your product Easy to See.

COLOR makes your product Easy to Remember.

COLOR inspires confidence in its Quality.

COLOR helps insure Repeat Sales.

COLOR gives a Distinctive Appearance.

COLOR gives your product Better Display.

COLOR makes your product Smart—Modern.

COLOR advertises your product in the home.

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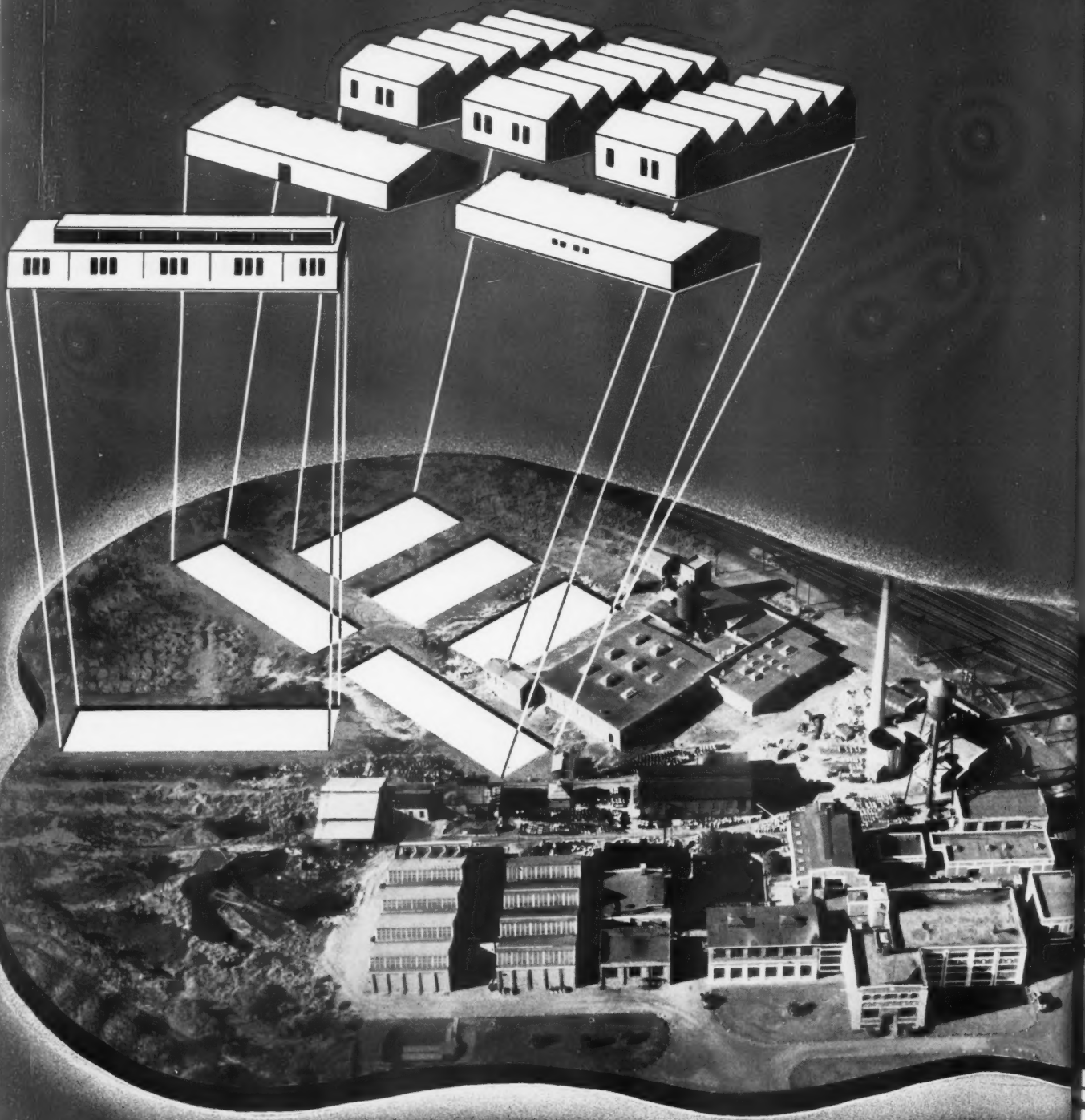
RICH, ROYAL MARYLAND BLUE stops the eye and starts the sale. Dealers like Maryland Blue because of its colorful display value . . . Consumers like Maryland Blue because it makes their favorite product easy to identify, easy to remember . . . You will like Maryland Blue because it high-lights your product to build sales.

Distinctive BOTTLES AND JARS

MARYLAND BLUE

MARYLAND GLASS CORPORATION, BALTIMORE, MD . . New York: 270 Broadway . . Chicago: Berman Bros., 1501 S. Laflin St. . . St. Louis: H. A. Baumstark, 911 Locust Street . . . Memphis: S. Walter Scott, 435 S. Front St. . . Kansas City, Mo.: Aller Todd, 1224 Union Avenue . . Cincinnati: J. E. McLaughlin, 401 Lock St. . . San Francisco: Owens-Illinois Pacific Coast Co.

A CHALLENGE



Shown here are the additional manufacturing facilities at our Delawanna, New Jersey plant. All of the new units indicated have been completed.

TO OUR SKILL AND INGENUITY!

Now that the uncertainties have been removed, there is but one goal ahead—VICTORY! Those of us on the Home Front have our jobs to do—to keep production up, morale high, and do our appointed tasks to the limit of our ability until the goal is reached!

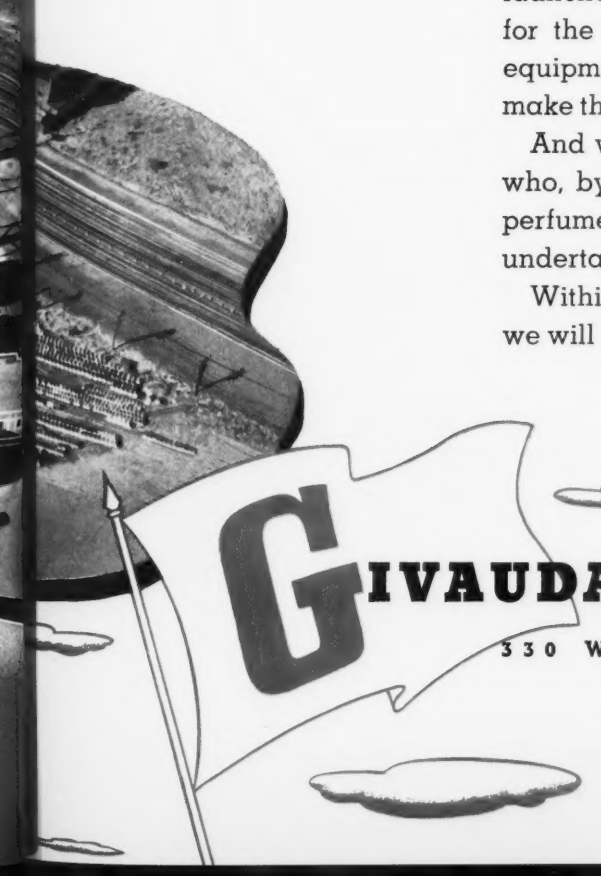
The importance of our industry in contributing to morale and to efficiency at home is well known. Nevertheless—first things must come first! That imports of raw materials for our industry must be sacrificed is accepted in these times. That other basic materials needed for our wartime production will become unavailable for non-defense uses is to be expected.

This will be a challenge to our skill and ingenuity.

At Givaudan we will meet this challenge to the best of our ability. We have the facilities. A program of plant expansion, launched four years ago, has added materially to our capacity for the production of high quality aromatic materials. Our equipment is highly efficient and flexible; we will be able to make the most of materials that are available.

And we have the experience. Our staff is composed of men who, by training and intimate association with the needs of perfume, cosmetic, and related industries, are well qualified to undertake this new responsibility.

Within the necessary limitations of available raw materials, we will do our utmost to see that all needs are met.

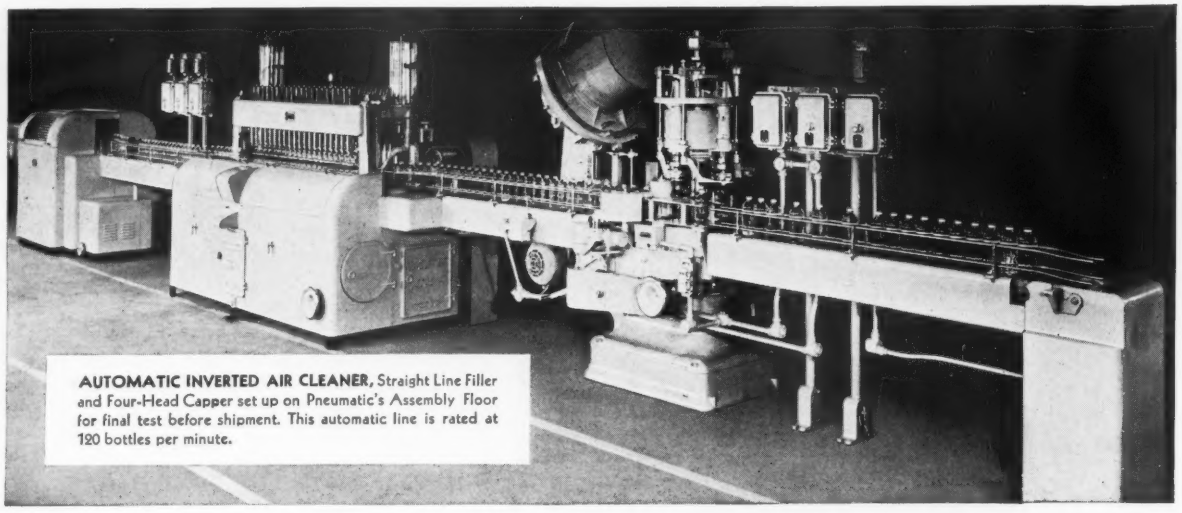


GIVAUDAN-DELAWANNA, INC.

330 WEST 42ND STREET, NEW YORK, N. Y.

Know the Inside Story

BEFORE YOU BUY BOTTLING MACHINERY



AUTOMATIC INVERTED AIR CLEANER, Straight Line Filler and Four-Head Capper set up on Pneumatic's Assembly Floor for final test before shipment. This automatic line is rated at 120 bottles per minute.

PNEUMATIC BOTTLING EQUIPMENT

Modern in appearance — but that's not all. Beneath the surface of a Pneumatic Cleaner, Filler, Capper or Labeler you'll find these hidden features that have established Pneumatic's reputation for machinery which gives longer, trouble-free service:

1. Pneumatic machines are the product of fifty years of manufacturing experience and with this background all guess work in design is eliminated. All parts are of proved design.

2. You will note that each structural casting is designed for strength and rigidity to minimize vibration. On the other hand, high-speed moving levers are made as light as possible, without sacrificing strength, either by proper ribbing or the use of light metals.

3. Although hidden from ordinary inspe tion, every machine part which is subject t excessive pressure or wear is hardened and precision ground, adding years to the life of the equipment.

4. Notice how Pneumatic machines are designed for easy accessibility to all parts, making them convenient to service in all respects.

5. Examine the lubricating system and you'll notice that it is carefully planned with provisions made for complete and effective lubrication.

6. For your further protection, you'll find that auxiliary equipment such as motors, variable speed drives, pumps, etc., used on Pneumatic machinery are all supplied by reputable manufacturers.

In the final analysis you are assured of dependable operation, longer equipment life and more for the dollar when you specify,—Pneumatic Bottling Machinery.

PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

PNEUMATIC SCALE CORP.

70 Newport Avenue, North Quincy, Mass.

Branch Offices:

NEW YORK · CHICAGO · SAN FRANCISCO · LOS ANGELES

Synfleur

REG. U. S. PAT. OFF.

Happy New Year

May 1942 bring the dawn of that day when Peace and Happiness may again reign among the peoples of the world.

This is our heartiest wish.

SYNFLEUR SCIENTIFIC LABORATORIES, INC.

MONTICELLO, NEW YORK, U. S. A.

Atlanta **Detroit** **Chicago** **Mexico, D. F.**
Buenos Aires **Lima** **Havana** **Santiago** **Rio de Janeiro** **Guayaquil**

Worth looking into!

Whatever will fill *your* pockets with cash is certainly worth looking into!

To you this means packaging your products in *glass*. For, as a result of many *new* developments, Anchor Hocking glass containers *today* offer you a host of sales-stimulating features. In addition, Anchor Hocking gives you—at *no extra cost*—the *extra* advantages of Anchor Hocking experience and facilities. Its specialists...in design, engineering, biological and chemical research ...know packaging from every angle. They are at your service, to provide first-rate technical assistance, new packaging ideas, containers and closures designed to better sell and better seal your products.

No matter what your requirements—the complete package, the containers alone or the closures alone—call your friendly Anchor Hocking packaging engineer—now!

Worth looking into!

The Anchor Hocking Wide Mouth Round

This splendid container—the Anchor Hocking 6500 Wide Mouth Round—is a honey for all kinds of dry chemicals, powders and a variety of other products. Easy and swift to fill ...contents highly accessible. Generous labeling space. Available in amber or crystal...21 sizes, ranging from 3 cc. to 950 cc.

The Anchor Improved C.T. Cap...Pitch of cap thread and glass container thread matches throughout their entire length, gives better, tighter seal. Absence of interference between cap and container threads makes cap easy to spin off or on. Fine knurls, cylindrical side walls and neatly turned wire edge provide better appearance.

The Anchor Amerseal Cap...Its equally spaced lugs engage under side of glass container lugs, draw cap down, compress liner in tight, even, *complete* contact with container finish. No thread matching, as in screw caps. A quarter turn and it's off or on. Will not corrode, rust, gum or freeze to container finish.

ANCHOR HOCKING

GLASS & CAPS

ANCHOR HOCKING GLASS CORPORATION • LANCASTER, OHIO

With deepest sorrow
we announce the death
of our beloved vice-president and associate
Charles Lucien Senior
on Thursday, December twenty-fifth
Nineteen hundred and forty-one
Florasynth Laboratories, Inc., New York

From TREE TO PACKAGE
PENICK *Evenized* GUMS
are scientifically nursed

Extending a far-flung field organization into more remote sections of the globe to uncover new sources of botanical supply . . . and maintain a steady flow of botanical raw materials from abroad.

Native women assorting Gum Tragacanth for shipment to S. B. Penick & Company.

ARABIC

Keen selectors of high quality raw materials, Penick buyers know the same Gum Arabic tree can yield both top and bottom acacia grades. Reason one for the unrivalled whiteness, viscidity, and other qualifications of Penick Gum Arabic.

TRAGACANTH

There is always a suitable grade of gum for the purpose at the right price. Here, again, Penick excels, solicits consultation. From the tragacanth trees of Persia and Turkey come Penick ribbon and flake tragacanths—for making Crystals, Powder, Special Millings, and other forms.

KARAYA

Long-time experts on Karaya, Penick proffers intelligent advice on the gum's viscosity, surface adhesion, precipitation, invites inquiry on the type you may need. Important are the maximum strength and purity of Penick Karaya.

Write for samples, quotations and the "Price List and Manual"

At the beck and call of Penick customers are skilled chemists, botanists, biologists, a host of scientists. Whole and milled, special grades of gums can be prepared to specifications.

ORDER FROM ONE RELIABLE SOURCE—Gums, Insecticide Bases, Crude Botanicals, Fish Liver Oils, Extracts, Alkaloids, Cosmetic Raw Materials.

S. B. PENICK & COMPANY

50 Church Street, New York, N. Y. **735 W. Division Street, Chicago, Ill.**

THE WORLD'S LARGEST BOTANICAL DRUG HOUSE

LET'S ROLL UP OUR SLEEVES!

AMERICA'S greatest war effort of all time depends upon keeping industry at top speed.

With shortages and priorities affecting every manufacturer, we must make the best of things despite all handicaps.

The Aromatics Division of General Drug Co. pledges all of its resources and experience to do its part in preserving and perpetuating the soap and cosmetic industry as an important phase of American economic life.

Aromatics Division

GENERAL DRUG COMPANY

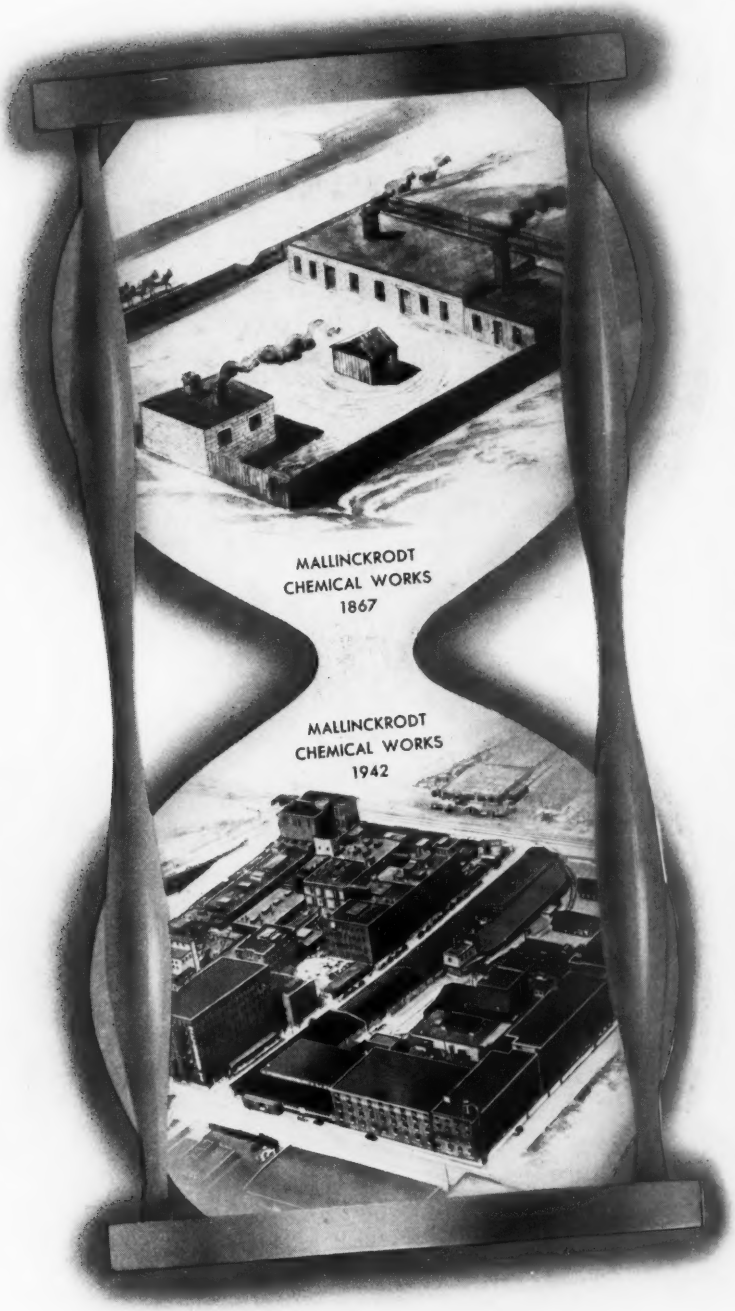
644 Pacific St., Brooklyn, N. Y.

9 S. CLINTON STREET, CHICAGO TRANSPORTATION BLDG., LOS ANGELES

1019 ELLIOTT ST., W., WINDSOR, ONT.

75 Years of Service

TO CHEMICAL USERS



This year, the 75th Anniversary of Mallinckrodt Chemical Works, we can look back with modest pride on a long period of achievement and service to users of chemicals for cosmetics, pharmaceuticals, laboratory, industry, and photography. From a humble beginning in 1867 with a little one-story plant and four employees, Mallinckrodt now renders nationwide service from one hundred factory and office buildings in the U. S. and Canada through a staff of over 1500 men and women. A few simple materials first manufactured by Mallinckrodt now have become more than 2000 items. Today there is hardly a field of endeavor in which Mallinckrodt chemicals do not play their part.

The words of one of our founders, Edward Mallinckrodt, spoken years ago, express the ideals of Mallinckrodt: "We realized from the start that business depends on reciprocal relations and confidence; that we would have to establish a reputation for fair, honorable, liberal dealings and to make it to the interest of the buyer to place his orders with us, by supplying service and endeavoring to satisfy our customers as far as possible in every respect."

FINE CHEMICALS
Mallinckrodt
SINCE 1867

MALLINCKRODT CHEMICAL WORKS

Serving Chemical Users For Seventy-Five Years

MALLINCKRODT CHEMICALS

Build Finer Medicinals and Cosmetics

Nothing succeeds like quality — in the manufacture of pharmaceutical and cosmetic products. That is why so many makers of medicinals and toiletries concentrate on Mallinckrodt Chemicals to increase sales.

Quality is a creed with Mallinckrodt Chemical Works. The flask and potentiometer, the centrifuge and pipette hold sway. Capable laboratory technicians, commanding the finest scientific equipment, put raw materials, intermediate products and finished chemicals through a multitude of rigorous tests. The purchaser can, therefore, be certain that every Mallinckrodt Chemical he buys will have met the high chemical and physical standards it must have to merit the Mallinckrodt label.

Mallinckrodt invites inquiries from firms who are in the market for fine chemicals for medicinal or cosmetic products.

Serving the Drug and Cosmetic Industry for Three-Quarters of a Century

MALLINCKRODT CHEMICAL WORKS

74 Gold Street, New York, N. Y. Mallinckrodt Street, St. Louis, Mo.

CHICAGO PHILADELPHIA MONTREAL TORONTO

KEEPING POSTED

Sharp Alcohol Cut

Alcohol and molasses are now under full allocation orders issued by the OPM. The alcohol order directs a real blow to cosmetic manufacturers in cutting their consumption for January of this year by fifteen per cent. compared with January of last year. But with February this cut goes still deeper and continues at a thirty per cent. curtailment for the balance of the year unless the order is amended in the meantime. The order draws a comparison on the basis of Federal fiscal years. It states that the amount from which the curtailment is to be made is the year ended June 30, 1941. Monthly comparisons are to be made with the months of that fiscal year. This means that comparisons for the first six months of this year will be made with the corresponding six months of 1941, while comparisons for the last six months of this year will be made with the last six months of 1940. No alcohol will be used for manufacture of anti-freeze from now on except for anti-freeze for military purposes.

Shipments of alcohol for Health Supplies, as defined in preference rating order P-29, can be made without limitation or without any comparison with former consumption.

Cosmetic preparations specifically named in the order as subject to this curtailment are: Hair and scalp preparations, bay rum, shampoos, face and hand lotions, body deodorants, toilet waters, perfume and perfume tinctures, toilet soaps (including shaving creams), mouth washes, tooth cleansing preparations, perfume materials and fixatives, rubbing alcohol, witch hazel, deodorant sprays (non-body).

Isopropyl alcohol, as well as other solvents, also comes under the order and preference numbers are assigned to various uses to which isopropyl alcohol is put as follows: For production of acetone, B-1; chemicals, chemical products and chemical processing, B-3; drugs and pharmaceuticals, B-5; anti-freeze, B-7.

Alcohol Ceiling Doubled

To increase the production of alcohol and other solvents through the use of higher cost raw materials, the ceiling prices have been practically doubled. The order also takes into account the higher cost of molasses and provides a sliding scale, based upon the cost of molasses, when that raw material is used for the production of ethyl alcohol, butanol, and acetone. The ethyl alcohol ceiling has been raised from 24½ cents per gallon to 50 cents per gallon in tank cars at works for the basic formula SD 2B. SD 1 is priced at 53 cents, SD 3A at 53 cents, SD 12A at 51 cents, SD 23A at 53 cents, SD 23G at 56 cents, SD 23H at 53,5 cents, Proprietary name CDA at 58 cents, and Proprietary name solvent at 54 cents.

In the case of alcohol produced from molasses, the above prices apply where the cost of molasses used is $2.47 per hundred pounds of sugar content delivered to the plant. For each increase or decrease of 10 cents in this cost, the maximum prices for alcohol can be varied by 1.5 cents per gallon. For less than tank car lots, the following differentials are added: Car load of drums or barrels, plus 3.5 cents per gallon; Nineteen or more drums or barrels, plus 6 cents per gallon; From 1 to 18 barrels, plus 9 cents per gallon. For the Western territory, 4 cents per gallon additional may be charged, and 3 cents per gallon may be charged for anhydrous ethyl alcohol. The term "Eastern territory" means New Mexico, Colorado, Wyoming, Montana, and all states east of these states. "Western territory" means all other states.

Coal Tar Solvent Prices

Action to stabilize the prices of coal tar solvents, from which come many drug products, has been undertaken by the OPA. Producers of benzol, toluol, and xylol are being asked to keep their prices for the first three months of this year at not more than one cent a gallon

above the price which prevailed during the last three months of 1941. There was an indication that producers intended to raise their prices one and one-half cents.

Molasses Restricted

The molasses order hits fermentation citric acid manufacture by allowing deliveries of molasses for this purpose to a thirty day supply, which is defined as one-twelfth of the amount of molasses used by the manufacturer during the calendar year ended June 30, 1941. The citric acid producer is allowed to have an additional fifteen days supply of molasses on hand, but no more. Any amount which he has in excess of a fifteen days supply must be deducted from his deliveries for the month in question. This means that a manufacturer can have no more than forty-five days supply of molasses on hand at one time.

Also, while not particularly pertinent to this industry, it might be well to note that the order prohibits the use of molasses for the manufacture of beverage spirits after January 15. This means that domestic rums, and gins distilled from molasses will not be made for the duration. It also means that no molasses alcohol will be available for blending purposes.

OPM Drug Position

Drug manufacturers are in a much better position in the OPM than they were previously. This is for the reason that the head of the Health Supplies Division, William M. Bristol Jr., now reports directly to Mr. Knudsen, and therefore the Health Supplies Division is in direct contact with the "top-flight" officials. Previously, Mr. Bristol had to report through other officials who would report to Mr. Knudsen. This had disadvantages as any one will realize. Now the problems of the drug manufacturers will be told directly and will be told straight.

Another reason why the drug manufacturers are in a better position is that coordination in the matter of supplies has been inaugurated in Washington. Previously, there was no coordination in the buying for the Army, the Navy, Lease-Lend, Red Cross, and other leaks through exports and other channels which were draining the drug supplies of the country without any definite information as to the output compared with what we could produce. However, Mr. Bristol finally worked to the end that a board has been appointed of which he is the head. Other members are: Dr. James A. Crabtree, of the Public Health Service, and Secretary of Federal Security Administrator McNutt's Health and Medicinal Committee; Col. C. F. Shook, of the Army Medical Corps; Captain Carleton Andrus, of the Navy Bureau of Medicine; Captain Clifton Morgan, of the Army-Navy Munitions Board; and Frederick J. Stock, of OPM Health Supplies Division, who is Secretary of the committee.

This committee will try to have reported through it all the purchases that are made by the Army, Navy, Lease-Lend, Red Cross, and other agencies, so that they might have definite information on the amount of drugs being used by our armed forces and being shipped out of the country. This will be compared against our ability to produce, and thus an effort can be made to see that a certain amount of goods is retained to care for health of our civilian population.

New Health Supplies Plan

Development of the modification of what is known as the General Production Requirements plan which is being worked out by the Health Supplies Division is understood to be sufficiently completed so that complete information will be available any day. Medicinal preparations will doubtless be included in the plan in the same manner as chemicals for medicinal use are included in the present Health Supplies plan. Medicinal products, as defined under the new plan, will include proprietaries, and medicinal products will enjoy a higher rating than the present A-10. However, those items which are now on allocation such as phenol, chlorine, and other items, will be carried over on the allocation basis with the allocation taking precedence over the A-rating. But in spite of such a condition, there is no reason to believe that the allocation plan will not fully provide for the drug industry requirements of such items.

It does appear that even though the drug manufacturers will receive supplies in the future, they might receive as great quantities as might be desired. It might be that manufacturers of proprietaries will be forced to cut the number of bottles or jars of a preparation by twenty-five per cent. during 1942 and 1943. This will be in line with a forced decrease in all types of consumer goods. However, the heavy taxes which we are now to pay and the heavier ones which we shall have to pay in the immediate future might curtail demand to the point that no more supplies will be needed than can be obtained.

Watch for Ceilings

The action of the OPA in placing a ceiling in cigarettes is an indication of how far this agency is prepared to go in its attempts to prevent inflation as far as possible. Manufacturers in this industry would do well to think twice before they advance prices. There is justification if costs have gone up materially, but manufacturers should be ready and willing to justify any advances that are made. There might be justification for advancing smaller sizes, but the larger sizes generally carry sufficient margin to allow prices to remain unchanged. Any attempts to advance prices just because there is a shortage of certain items, or because the traffic will bear it, will bring the entire industry into ill repute and will result in action being taken against the

industry as a whole. The drug division is hard at work trying to obtain accurate information regarding drugs and more price ceilings on raw materials will be issued from time to time. Because of the activity of the OPA in holding down prices of raw materials, manufacturers of finished goods should be doubly careful.

Tin Supplies Restricted

With future supplies of tin very doubtful unless the war in the Pacific takes a definite turn for the better, the OPM is clamping down on the use of tin to such a point that it is doubtful that there will be supplies in excess of fifty per cent of the tin used in 1940 for use in making collapsible tubes. While most manufacturers of shaving creams have discontinued the use of tin tubes and are now using tin coated lead tubes, there appears to be difficulty with the lead supply. As one collapsible tube manufacturer states, "All you have to do is to get the tin coated slugs from the lead company and then you are all right."

The order of the OPM cutting down the tin supplies for tubes to fifty per cent. of the amount used in 1940 gives no breakdown of the amount of this tin to be used for packing various types of products. It is thought that some classification will follow with pharmaceutical products getting preference over tooth pastes.

Tin stocks were estimated this month at 140,000 tons, or slightly more than the 100,000 tons per year used in peace time. A new smelter for refining Bolivian ore is now under construction in Texas, and this is expected to supply one-fourth of the country's requirements. About seventy-seven per cent. of the 125,000 tons of tin imported into this country during 1940 came from British Malaya, and about ten per cent. came from the Netherlands East Indies.

Glass Containers

The shortage of tin for use for tooth paste and other containers will doubtless bring about a further swing to glass for many of these products. The glass manufacturers are already producing at new high rates of capacity. However, it is said that they could turn over some of their plants to production of containers for foods and drugs. They believe that they could obtain the material necessary to make the necessary molds. OPM states that material needed by glass plants could be obtained on an A-10 rating. However, there may be some difficulty in securing materials necessary for production of cosmetic containers since these supplies may carry a B-6 rating.

The attempt to swing to glass is further hampered by an appeal to glass container manufacturers and users by Lessing J. Rosenwald, chief of the Bureau of Industrial Conservation of OPM, to conserve raw materials essential to war production by simplifying bottle sizes, shapes and finishes wherever possible. Widespread and effective simplification would reduce the variety of sizes and designs now in use, says Mr. Rosenwald, which in turn would permit more efficient use of manpower, fuel, and equipment, as well as achieve savings of critical materials.

Such a program should also include use of a greater proportion of the larger size containers. Scarcity of soda ash and other chemicals used in making glass containers necessitates the utmost economy and efficiency in their consumption. Mr. Rosenwald states that iron used for molds can be conserved through greater use of existing mold equipment and by elimination of fancy designs which require greater quantities of iron than conventional designs. Paper used for shipping cases would also be saved by such conservation methods, he says.

Peppermint Oil Prices

Peppermint oil is heading for a price ceiling, according to indications. Peppermint oil has practically doubled in price since the middle of November, being priced at $3.90 per pound then, and being priced at about $7.50 per pound now. The reason for the sharp price in peppermint oil is not far to seek. It is based upon the shortage of menthol and the very high prices for that Commodity. Since natural menthol comes solely from Japan and China, and since synthetic menthol is made from Java citronella, future supplies of menthol appear extremely doubtful until a real change in the Pacific theater of the war occurs. So spot menthol has advanced in price to approximately $15.00 per pound, and the only available source of menthol is American peppermint oil which contains fifty per cent. of menthol against eighty per cent. present in the Japanese type oil. Since peppermint oil is now called upon to supply future requirements of menthol, or to replace menthol where menthol has been used for flavoring purposes, it is in extremely heavy demand and buyers are willing to pay for it on a menthol content basis compared with current prices for menthol.

But Price Administrator Leon Henderson is going to stop any runaway market for the inadequate supply of this material. He called to Washington on January 13 parties interested in the production and distribution of peppermint oil—agricultural extension directors in the principal commercial mint-growing states, such as Indiana, Michigan, Ohio, California, Oregon, and Washington, as well as the mint growers themselves, the essential oil dealers, and interested consumers.

Methanol Free for Some Uses

Limits on shipments of methyl alcohol have been removed by the OPM if the methanol is to be used for denaturing ethyl alcohol, to produce formaldehyde, or for general chemical manufacture. The purpose of this amendment is to divert available methanol to essential uses even at the expense of those who will suffer from not receiving sufficient quantities for non-essential uses.

Zinc Oxide Ceiling

Ceiling prices have been placed on zinc oxide by the OPA. French process oxide U. S. P. now carries a maximum price of 10½ cents per pound. Other lead-free French process oxides, other than U. S. P., made from slab zinc or secondary metal, or from portions of each, are priced at a maximum of 9½ cents per pound. Lead-free American process zinc oxide is priced at a maximum of 7¼ cents per pound. These prices are for carload lots packed in bags. Less than carload lots carry ¼ cent per pound differential; barrels carry ¼ cent differential; sellers in California, Oregon, and Washington can add one-half cent per pound; and West Coast sales in less-than-carload lots may charge on an F.O.B. warehouse basis instead of a delivered basis.

Bristles Commandeered

Pig and hog bristles over three inches long are reserved for military requirements under General Preference Order M-51 issued December 17 by the Division of Priorities. The reason is that future shipments are uncertain as they have been imported largely from China. The bristles are used in twelve sizes, graduated in quarter inches from three to six inches, for the manufacture of hair brushes. The order, which took effect immediately, provides that no person shall process bristles or otherwise commence the manufacture of any product of which bristles are a part, except on defense orders, unless specifically authorized by the Director of Priorities.

All stocks of bristles in the country were frozen by the order, and transfer of title must be reported to the OPM on the day following the transfer. China is the principal source of bristles because the hogs are allowed to grow older before slaughtering and thus the bristles are longer, and low-cost labor sorts the bristles for a few cents a day.

Chlorine Allocation

Chlorine now comes under direct allocation through an OPM order effective February 1. Chlorine has for some time past been under full priority, and the new order merely strengthens the first order and makes for a more orderly method of distribution of existing production. It is not thought that this industry will be drastically affected.

Insulin Under Drug Law

An amendment to the Food, Drug, and Cosmetic Act to establish control over Insulin was passed unanimously by the House and the Senate and signed by the President on December 22. Since the Insulin patent held by the University of Toronto expired December 23, control of Insulin quality passed from the University of Toronto to the Food and Drug Administration immediately on expiration of the patent. The amendment merely provides that Insulin introduced in interstate commerce must be "from a batch with respect to which a certificate or release has been issued pursuant to section 506, and such certificate or release is in effect with respect to such drug."

New Camphor Source

A new source of camphor has been discovered in the oil distilled from the leaves of Ocimum kilimandscharinum, a perennial and easily cultivated plant native in the Sudan. Camphor distilled from the oil has been found to be of normal quality, while the residual oil resembles light camphor or spike lavender oil in odor. It would be best that the entire oil be exported with a guaranteed camphor content, and then separation effected in the manufacturing country. An increased quantity of the plants were sown last season.

F.D.A. Busy on War Work

The Food and Drug Administration is having extra work piled upon it as a result of the war. This additional work is coming through the inspection of foods and drugs for the Army, Navy, Lease-Lend, and other war uses. This will doubtless leave the FDA less time to spend upon its normal activities of regulating the food, drug, and cosmetic industries. It is doubtful that the FDA can obtain additional money to provide additional personnel to handle this extra work since they are not connected directly with defense activities. But even though the FDA will be extra busy from now on, it is no time for manufacturers to take chances. The lessening of activity regarding this industry will probably take the course of less desire to institute proceedings against border-line cases which would take more time than routine cases on which the policy and law have been well established.

F.T.C. Warnings

The question of warning statements in advertising, or rather reference in the advertising to warning statements contained in the labeling of the product have been somewhat clarified by Dr. James J. Durrett, medical advisor to the Federal Trade Commission.

With reference to Acetanilid, Dr. Durrett does not agree with the FDA that the drug will cause serious blood disorders and anemia. However, he does believe that it is habit-forming and will cause collapse.

He expresses the opinion that there are many Mercury preparations on the market that do not give satisfactory warnings concerning the effects of mercury. There are a number of products containing bichloride of mercury.

Bromides will produce a skin rash in many instances, and if used over long periods of time they will cause

mental derangement. There are many people in mental institutions as the result of the use of bromides, says Dr. Durrett. Others who have made exhaustive studies of the effects of bromides contend that bromides do not cause mental derangement and that persons who are hospitalized with large quantities of bromides in their blood are not the victims of derangement caused by bromides, but have the bromides in their blood because the bromides were administered in an attempt to quiet these mentally deranged people before they were committed to institutions. Therefore, they contend, the high blood bromide content is the result of the mental condition rather than the mental condition being the result of the bromides.

The opinion of Dr. Durrett regarding alkalies and antacids seems to be that in a few instances they may be of value in relieving sour stomach or heartburn, but that seems to be the extent of their value. He believes in that old doctor's creed of false security regarding medicines, namely that many people would be alive today if they had gone to a doctor rather than relying on alkalizers.

Phenolphthalein is definitely an irritant carthartic type of drug which would in many instances produce a skin rash, is the Doctor's opinion.

Drug Trade Dinner

As the new year rolls in so does the Annual Drug, Chemical and Allied Trades Dinner lie immediately ahead. March 12 at the Waldorf-Astoria Hotel in New York, the men of these allied industries will gather for a night of goodfellowship. This year of all years there is reason for us to contact associates and friends in our lines of business so that we can all feel to a still greater extent that we are part of the struggle in which this nation and its allies are engaged. Further to let us know that we are all part of battle for freedom, is the fact that the net profits of the dinner are being donated in one lump sum to the American Red Cross. Costs are up and so is the price of the dinner. But let us not worry about that because any additional profit as well as the normal profit will all go to this worthy cause. See you at the dinner!

Less Citric Acid

In addition to the order which prohibits a manufacturer of citric acid from receiving in any one month more than a thirty days supply of molasses for use as a raw material, there is the fact that citric will be still tighter due to the war in the Pacific. Hawaii has long been a producer of citric acid from pineapple juice, and while this was far from being an important source of supply, it was a contributing factor which was very welcome in the present emergency. A possible one million pounds of citric acid is said to be available from Hawaii per annum. How much of this we will now get is problematical. It is possible that ships carrying supplies to Hawaii could carry this material back to this country. However, we shall have to wait and see.

What's Ahead?

Ever since the war started in Europe we have been receiving articles from England giving us such information as was available on the difficulties of doing business in that country in drugs and cosmetics. These articles have been informative in that they told how the British overcame the difficulties caused by shortages of supplies of various kinds. Further than this, we have constantly culled from the British trade papers devoted to this industry, such additional information as we could find.

While this information might have seemed a little out of place while we were at peace, we were publishing this information for the benefit of manufacturers in this country if the war should involve this country. We did not believe that conditions in this country at war would be quite so severe as present indications appear they will be, but we knew full well that shortages and higher prices were inevitable in many instances. Now that we are at war it appears that our conditions in general are going to parallel those of England although there may be many variations in details.

With cosmetic manufacturers now without brass, tin, aluminum, and some other materials, we now know the type of thing that lies ahead. More do we realize when we are told that alcohol consumption for cosmetics must be cut fifteen per cent. for January, and thirty per cent. from then on for the duration. One cannot be sure of anything in war time, and this industry cannot be certain that further cuts in supplies might not lie ahead. Some feel that cuts are being made drastic in the beginning so that they can be eased when new plants come into production and supplies for military use are well in hand. However, no one can be sure of this either, because as the war and its needs expand, the government is constantly "raising its sights" and seeing the need for still greater production of arms and equipment of all kinds.

There is no reason to expect that anything will be easier as the war progresses. The only time that we can be sure things will be easier is when the war is won, and then there will be far too much of everything. The British went along with the one thing being taken away at a time, only to find that this was not enough. Finally the blow struck in the form of an order that cut their production of cosmetics down to a more twenty-five per cent. of what it had been.

This is the sort of thing that we have to guard against. By cooperation in economizing for the war effort we can come pretty near seeing the thing through without any such drastic curtailment. We have been a wasteful nation because we had the things to waste. By eliminating the normal waste in this country we can produce an enormous amount of material for the war effort and still have enough left over for comfortable living.

THE PATH AHEAD

NOBODY in this country can accurately determine just what shortages will hit them next and how serious these shortages will be. The war effort is so vast and so complicated that there is no one who can predict what ramifications it will follow. Shortages of certain things that would occur if such amounts were diverted during normal times, will not be so acute because of the fact that the civilian demand will be automatically curtailed because of taxes and other factors.

This industry has been affected to some extent by the shortages of metals. However, the curtailment of alcohol promises to be a much more serious action against the production of cosmetics. Packages might be replaced in one way or another, but there is no way of replacing alcohol. Less alcohol either means less production, or less alcohol used in the various products. The first cut of fifteen per cent. of alcohol for January, and thirty per cent. for the months thereafter, might not be the deepest cut to be made. There are rumors that a further cut might be ordered before many months have passed. However this depends upon many other factors, some of which are the rapidity with which new alcohol production becomes effective; the direct needs of the war effort for alcohol; the extent to which normal peace-time industries are curtailed in their needs of alcohol by lessened demand as the result of taxes or by shortages of other materials.

Alcohol is only one example of a product that is controlled by so many variables that no one can tell whether it will be easy or tight over a long period of time. Take the case of glass bottles. There are only so many plants in the country, and these plants have only so many machines for production of bottles. Therefore, if the drug and cosmetic manufacturers must use more glass, as appears likely from the shortage of tin, then where is the glass to come from? But if one figures that a shortage of sugar or a shortage of citric acid, or a shortage of some other ingredients of soft drinks must of necessity lessen the consumption of soft drinks and therefore the use of bottles for this purpose, then there might be some slack in the bottle manufacturing business to allow this industry to get more bottles. Further there is always the matter of taxes and higher prices on all things to curtail the general consumption of all things, and glass bottles for all uses will thus be curtailed so that this industry might be able to obtain a greater percentage of its packages in the form of glass bottles than was formerly the case.

The situation surrounding cosmetics in particular is such that orders issued from the OPM might bring still further surprises. It does not appear that the officials in charge of priorities or allocations have any idea in their minds that cosmetics as a general class must be sustained for public morale. Despite the experience in England, where bootlegging of cosmetics has created a condition much similar to that created by the bootlegging of liquor in this country during prohibition, there are no indications that Washington officials realize that women will have cosmetics *or else*. If the women of the country have their say in the matter, cosmetics will be available even though many other items are curtailed.

But the production of all things in this country must be balanced either naturally or artificially so that the goods go where they are needed, the first requisite being the armed forces. There is no real citizen, man or woman, who would not forgo practically anything so that the men who are fighting the war in the armed forces could not have everything that is necessary for their welfare and protection. With the greatly increased national income brought about by the top speed at which industry is moving to fill war orders, the higher taxes and the higher prices for everything are the only factors that will curtail demand for civilian goods and thus ease the problem of the government in issuing orders curtailing arbitrarily the consumption of goods for other than military purposes.

There are many people who are somewhat surprised that this country is not entirely self-sustaining in the present emergency. These people are of the opinion that our resources are so vast that we should be able to have all the guns that we want and all the butter too. But these people do not seem to realize that the country is now engaged in a program that will supply guns and

butter to the greater part of the world. The program which we are following is not a program that includes merely our own needs. We are seeking to supply all of our allies with everything that they need over and above their own production. And despite our own ability to produce most of the things that we need, there are many things for which we depended upon foreign countries or outlying possessions for at least part of our supplies.

Sugar and molasses, which are the basis for the current sugar restrictions and the alcohol restrictions, come in part from long distances. True enough, we get considerable sugar and molasses from this country and from Canada, to say nothing of our main supplies coming from nearby Cuba. But we obtained a goodly quantity of sugar from Hawaii, to say nothing of some one hundred thousand tons of sugar coming into this country annually from the Phillipines. Now that the sugar from the Phillipines is something that cannot be counted on, and the sugar from Hawaii is not certain of arrival, steps must be taken to allocate the supplies of which we are certain. Furthermore, we are sorely in need of huge supplies of alcohol for the production of smokeless powder, and therefore, we must take greatly increased sugar in the form of molasses so that more alcohol can be produced. Sugar and molasses are the same thing so far as alcohol production are concerned. There is only so much sugar cane and sugar beets, these can be converted into sugar and molasses as a by-product, or high test molasses can be made which will curtail the production of sugar itself.

All production in the country is made of problems of this kind. In the present emergency all things must be reduced to the simplest terms. It makes no difference whether there are many grades of the same product made from the same raw material, the one grade that is essential is the only thing that matters and all the raw material that is necessary for production of this one grade must be diverted to that use. This is no time for manufacturers to say that a loss is involved in manking the transition to produce the essential grade or type of material.

Even though there is an acute shortage of tin for ordinary purposes, this is no reason to suppose that tin tubes will not be available for medicinal products to be supplied to the armed forces. Such medicinal preparations as the soldiers of the nation must have in tin tubes will be supplied regardless of whether or not tin tubes are available for civilian products. This is a war in which everything that the nation has is at the disposal of the armed forces of this nation and her allies.

Manufacturers in this industry must get the idea into their heads that when this nation goes to war it does so in a whole-hearted fashion. The entire nation and its economy are going to be transferred to prosecution of this war. Civilians will have only the bare necessities of life. Whether one personally likes this method of fighting a war or not makes no difference. But whether one likes it or not, he will agree that the feeling that such a method makes victory certain is well worth the price that must be paid in discomfort. Further, the more effort that is put into the prosecution, the shorter the war will be with victory certain. This is no time for anyone to question the course which the nation is following. The only question that can be asked is whether the steps which are being taken to control industries are the best for all concerned and therefore for the success of the war effort. The thing to be accomplished so far as the civilian population is concerned is to keep them satisfied only to the point that they will keep producing at a maximum for the war effort.

If cosmetics are essential to keep the women of the country satisfied that the war effort is a proper one and is being prosecuted properly, then we should seek to have cosmetics in the quantity that is necessary. If cosmetics must be made somewhat differently or packaged somewhat differently, the manufacturers through advertising can sell the women of the nation on the desirability of these changes for one reason or another. This industry can serve the nation well in this crisis and no one doubts that it will not do so. Before the attack on Pearl Harbor the industry was cooperating to the utmost, and now that more is demanded, it will be forthcoming without complaint.

WHAT IS GOING TO HAPPEN TO COSMETIC PACKAGE DESIGNING?

By JOSEPHINE VON MIKLOS

In the past few years, as we all know, the packaging phase of the cosmetic industry has received ever increasing attention. Cosmetics were no longer hidden behind the mirrored doors of the bathroom cabinet, but emerged as an essential part of the decorative scheme of the boudoir. They expressed a fashion note; they were an important adjunct to the general theme of women's things, of women's lives.

It was easy for us to design those pretty packages. All we had to do was to choose among the endless variety of materials at our disposal. Sometimes a material was a note in itself and determined the style of the package rather than the other way around. It took a great deal more thought to limit ourselves than to use what we could get in endless profusion.

This is, therefore, the question which we have to consider, of which we must be conscious: will we have to forego the style, at last achieved; will we have to go back to the old drabness; will we have to put cosmetics back into the medicine cabinet?

During the past year, in our state of transition from happy peace time industry to full and troublesome and difficult wartime production, we were stumbling, day after day, against problems which we never believed could exist. By now it is almost impossible even to TALK to boxmakers. Printers can't tell whether they will be able to get coated stock. Foils have already been replaced with much less attractive non-metallic papers. Glass blowers tell us that they have to melt in old molds in order to make new ones, and if there are no more metals to be used, then there just won't be any new molds at all. Certain plastics have become totally unavailable, others are strictly limited. The supply of cellophane has been withdrawn for cosmetics. Brass and tin and steel closures will soon join the parade of cherished memories of a better and easier past. All these problems are not production and material problems alone. Molds and many other things cannot be made without skilled toolmakers, mechanics, draftsmen. And many of them have either joined the Army or are working in armament industries. In other words, production people, purchasing agents, and we, the poor harassed designers whose bright brainstorms have created so many of the pretty whimsies in this nation's shops, all seem to have reached a deplorable state of utter confusion.

The immediate result of all this, it seems to me, will be a somewhat different approach to cosmetic merchandising at large. Since we will have to do the best we can with the little that is left to us with which to do it, we will have to revise some of our established concepts and endeavor to find new ones. We will, perhaps, no longer be able to view a package as a combination of single units purchased at the lowest possible price, in order to make larger profits on the whole, or as an assembly line of mass produced single elements whose quantity keeps the price down, if bought and sold in large enough numbers. We may, rather, have to begin to look at individual packages and their cost from the point of view of what we can get. Specifically, this is how it may work out. Heretofore we have said: "Retail price one dollar, therefore, so much for the bottle, so much for the label, so much for the closure, so much for the box, etc." Now, we will have to do it this way: "So much for the bottle, so much for the cap, so much for the label, so much for the box, etc. Therefore, retail price one dollar, with a smaller margin of profit, or, more likely, one dollar and a half . . . ." The quantities ordered will have to be considered in this manner too; the entire structure of a package will have to be built in this new fashion. What it amounts to is this: rather than compromising down to a certain price, as we have done so far, we will have to compromise up.

But will it really mean compromise?

Will it mean compromise with good taste, and style?

With materials for packaging being taken away from this industry, with curtailment in the quantities of other materials being ordered, the free and easy attitude of package designers is gone. Now they must work within far greater limitations than ever before. This article points the way along the road that must be followed for the duration of the conflict.

I don't believe it will. As a matter of fact, I believe that out of all these difficulties and headaches which we have right now, something new in the way of packaging cosmetics will arise which will benefit industry and customers alike. Even if I may be accused of undue and untimely optimism, here is why I believe the way I do:

Many of our cosmetic packages of the immediate past had a tendency toward acrobatics. Many of them could be compared with the high polish on some metal, which was nice to look at, but gave no indication of the quality of its base. We were so overgorged with the unlimited choice of material that we went a bit wild.

Now we will have to use our originality, our ingenuity much more. We won't be able to hang our imagination on a thousand curlicues. We will have to use brains. Whimsies and tricks won't count so much. We will have to use inherent taste. Pure color, pure line, pure DESIGN will emerge in their full value. We will have to show that we understand the world in which we live. We will have to prove that we are more than just primadonnas whose every glamorous idea is delightedly accepted because we put on the artistic air. We will have to show, we will have to make, sense.

In the last analysis, beauty as expressed in commercial design means just that: appropriateness, practicability, dressed in a gown of color, of line, of charm and of harmony.

If it is beyond our power to get metals and plastics, we will find substitutes for them. Closures can be made of glass, of wood, of combinations of old and new materials. If we can't decorate our boxes with foils, we will find other ways to make them attractive, fabrics perhaps, or just other colors of paper. If we have to save paper on labels, we may use more of the printing processes on glass. If our quota of box board is cut down, we'll make our set-up boxes with less extra platforms, less wasted space, in simpler shapes. We may have to resort, at times, to wrapping bottles in thin sheets of paper rather than boxing them. If we can get no corrugated board, we may have to protect our merchandise with cotton, or wood shavings. Instead of metal lipsticks which swivel elegantly up and down, paper tubes will be used, and if they are attractively decorated, women won't mind buying them. For higher priced lipsticks, rouge boxes, compacts, wood and available plastics will be used. Since glass and wood, at this moment, seem to be just about the only materials available without too many difficulties for civilian use, we will have to learn to work with them and to transpose our plastic and metal conscious minds into a new direction.

As we go on, have more and greater problems to solve, and find new and perhaps even unheard of ways to deal with them, we will spend more time in research. Some of the things which we will find, may be stopgaps to be forgotten when our regular supplies are again available. Others may become a permanent addition to the vast possibilities of the realm of package designing.

It seems to me that it would be a dangerous mistake to stop designing packages just because it will be more difficult to do it. It seems to me that by the very fact that it won't be so easy, package designing will hold a very healthy and an extremely interesting challenge to all who are concerned with it.

DESIGN will become more important than Material.

Nor do I believe that the American woman, of every walk of life, won't cooperate, as long as she sees that the cosmetic industry is trying its very best to give here, in one way or another, the kind of things she needs to be well groomed, to feel pretty, to heighten her spirit. All of which had better go on, if we want to come out of the turmoil with our heads high, our humor unsoured, our beauty unmarred, and preserved for a simpler and better day.

NEWER BURN THERAPY

By M. A. LESSER

It is an unfortunate truism that war is one of the greatest spurs to the acquisition and utilization of knowledge in certain fields of science. That medicine is one of these fields is due not only to the fact that there is a great need for revised or advanced technics resulting from the new type of warfare, but also because of the horrible over-sufficiency of specific types of clinical material presented for medical treatment. It is understandable, therefore, why, even though the topic was discussed in this publication a little over two years ago,[1] the subject of newer burn therapy should be so pertinent now.

During the last few years, particularly in war-devastated England, much has been learned concerning the treatment of burns. For example, the tannic acid technic of Davidson, once thought to be the solution to burn therapy, is now recognized as having certain definite limitations and restrictions. Though still one of the most important forms of burn therapy, the basic tannic acid procedure has been modified in several ways by other workers. Dye-containing preparations are coming into wider use. Sulfonamides are finding more frequent employment. The so-called "envelope method" has been developed. Even more important, however, is the greater attention being given to the systemic effects of severe burns and methods for combating these effects.

Surgeon Rear Admiral Wakeley[2] of the Royal Naval Hospital, England, has summarized the treatment of burns on the basis of three major considerations: first, the saving of life; second, the local treatment of the burned area, and, third, the preservation or restoration of the function of the parts or areas involved.

It is largely on the basis of this last consideration that treatment with tannic acid is now largely restricted to burns on the trunk of the body. Indeed, it is now generally recognized that no coagulating agent which produces a tough, unyielding eschar should be used on the face, the hands and wrists, or the feet. Wakeley and McIndoe[3] have stressed that the unyielding tannic acid coagulum causes edema, seriously interfering with circulation and sometimes causing terminal gangrene of the fingers. In cases where healing finally occurs, the fingers may be drawn back by scar tissue, resulting in a useless, claw-like hand.

Such dangers have also been stressed by MacCollum[4] in his discussion on the burns of the hands. He, however, emphasizes the value of coagulating agents if the proper cleansing of the burn is first carried out and provided all procedures are done gently and the area kept sterile and immobilized until maximum healing is attained. Where such conditions cannot be fulfilled, he advocates the use of some type of ointment.

However, the more recent literature indicates that the envelope method, to be discussed later, will prove of great value in treating burns of the extremities.

Tannic acid treatment of burns of the face may produce very distressing effects, particularly about the eyes. The eyelids, fixed by tough eschar in the early stages of treatment, may leave the eyes out of reach of the usually necessary therapy. In the later stages, the contractures and eversion of the eyelid edge may leave the cornea of the eye exposed to infection and injury. Wakeley[2] advises gentian violet jelly or cod liver oil dressings for burns of the face, and in some cases triple dye preparations are effective.

There also appears to be growing agreement that coagulation should be avoided in the treatment of third degree burns.[3, 5]. Various other methods for treating such injuries have been advocated.

These contraindications to the use of tannic acid and certain other coagulating combinations, while limiting their spheres of usefulness, have not lessened their value in the treatment of other types of burns. Tannic acid jellies, for example, have been finding extensive use in burn therapy because of certain advantages in stability, convenience and effectiveness. Tomski,[6] in his discussion of the tannic acid treatment, cites a memorandum of the British Ministry of Health which mentions tannic acid jelly as a suitable agent in the treatment of minor burns.

This writer also reports a series of experiments with tannic acid jelly bases which proved that the most satis-

factory preparation is made by incorporating tannic acid with a tragacanth-glycerine base. According to the method described, glycerin of tannic acid (equivalent to *Glycerite of Tannic Acid U. S. P.) and sufficient* glycerine are mixed with powdered tragacanth (2 per cent.) and water is added with constant stirring. The *final jelly should contain 20 per cent. of glycerine. If it* is desired to include gentian violet, acriflavine, proflavine, or the like, the antiseptics are dissolved in the *water before trituration.*

A glycerine-tragacanth base was used in the tannic acid jelly developed by *Heggie and Heggie*[7] for use on board ships. Since the formula for this burn preparation was recently given in the pages of this publication,[8] *it is not necessary to repeat it here. However, it is of* significance that they also presented an alternate jelly, free of tannic acid, for use on severe burns of the hands.

Another non-greasy tannic acid burn jelly, made along similar lines, is manufactured by one of the larger British pharmaceutical houses. It is reported[9] to contain:

Tannic acid	5.0	per cent.
Acriflavine	0.01	"
Tragacanth	2.3	"
Glycerine	45.5	"
Amyl-meta-cresol	0.0025	"
Water, to make	100.0	"

A rather unusual procedure for applying tannic acid is one described by two European workers.[10] In this simplified technic, tannic acid powder is applied directly to the burn, the serious exudate acting as the diluent and solvent for the acid. It is claimed that this method gave excellent results in a series of forty cases and that the resultant scars were supple, non-contracting and very often invisible.

However, the basic method of applying solutions of tannic acid is still very frequently used, though this method has also been modified.[1] Most important is Bettman's modification of Davidson's tannic acid procedure by the conjunct use of silver nitrate. Often referred to as the Davidson-Bettman technic, this method seems to be getting more advocates and may perhaps entirely replace the use of tannic acid alone. This consists essentially of applying a 5 per cent. solution of tannic acid to be followed in ten or fifteen minutes with a 10 per cent. silver nitrate solution, producing an immediate and permanent eschar. The speed with which the protective coagulum is formed is said to be one of the chief advantages of the Davidson-Bettman technic.

This, however, has been further modified by the use of dye solutions, more particularly gentian violet aqueous solutions. According to Wakeley,[2] the usual procedure is to clean the burned area with saline, remove dead tissue, swab with 1 or 2 per cent. gentian violet and then follow by applying the tannic acid and silver nitrate solutions. When infection occurs under the coagulum, the crust must be removed and the region sprayed with gentian violet. Tannic acid is not reapplied. *Others,*[11] have commented on the advantages of this process for producing a dry smooth coagulum.

Straight dye preparations are preferred by many *physicians to produce the desired eschar over the* burned areas. The advantages claimed for these agents *is their high bactericidal action, the relief of pain, and the formation of a strong,* pliable tan. Although gentian violet is sometines employed alone, more generally, *it is used in combination with brilliant green and acri*flavine. The proportions of the triple dye mixtures used vary slightly with the several authorities, but one *typical preparation cited by Broster,*[12] *and tested by* use in a British Naval hospital, consists of gentian violet 2 per cent., brilliant green one per cent., and *acriflavine 0.1 per cent.* The application of this combination is said to result in less scarring than results from the employment of tannic acid.

In the British navy where space is at a premium, a jelly containing 1 per cent. gentian violet and 1:5000 merthiolate is now in general use as a first aid dressing for burns.[3] Preferred to tannic acid jelly, the dye preparation produces a good tan, prevents loss of blood plasma and has the advantage of having a definite bactericidal action on streptococci, the commonest organism found in burns after a few hours. The jelly is said to be impervious to the action of salt water and oil.

It is obvious that sulfonamides would inevitably be employed in the treatment of burns. Some physicians have administered these drugs by mouth as an added precautionary measure against sepsis. Cohen,[13] for instance, gave fairly large doses of sulfanilamide for two days and smaller doses during the succeeding forty-eight hours. Dennison,[14] in his discussion of the treatment of burns and scalds in children, says that he administers sulfanilamide to control sepsis, which, in 90 per cent. of the infected cases, is due to a hemolytic streptococcus.

However, the local application of sulfonamides has proven to be of great benefit and this use is now claiming much attention for the treatment of burns. Since such use of these invaluable drugs is comparatively very new, several methods of application are being tried and the entire subject is still under extensive investigation.

Of course, sulfanilamide powder has been used in the treatment of burns. For superficial burns, Pearson, Lewis and Niven,[15] found that the local use of powdered sulfanilamide and tulle gras (gauze saturated with petroleum jelly and balsam of Peru) has been especially successful, and rapid healing, with good function, has resulted. The tulle gras dressings are used to eliminate pain and injury while the dressings are changed.

Broster, in his discussion of war burns, describes the place of sulfanilamide powder as follows: "First aid treatment consists in getting the patient into a hospital as soon as possible. The burn should be cleaned under anesthesia (gas and oxygen or evipal or pentothal) with saline, dried with hot air, dusted with sulfanilamide and then sprayed with tannic acid and the part put at rest. For burns not involving the hands and face this gives satisfactory results. Sulfanilamide is considered un-

necessary by the sponsors of the triple-dye method, which is also sprayed on. The tan falls off about the tenth day, and lanolin is rubbed in afterward."

Another method is the one advocated by Gower.[16] He overlays the surgically prepared burned surfaces with strips of sterile scarlet red bandage. Over this is placed a sterile pad moistened with a freshly boiled solution of 1 to 1.5 per cent. sulfanilamide in distilled water. When the solution cools on the wound, the sulfanilamide powder precipitates. It is said that one advantage of this method is that the wound need not be redressed before the epithelium has formed, and healing is rapid.

Sulfonamides have also been used in conjunction with other substances that facilitate treatment, hasten healing or impart other desirable, advantageous qualities. Pickrell[17] of Johns Hopkins Hospital, reports excellent results and rapid healing of burns through the use of a spray consisting of 3 per cent. sulfadiazine in 8 per cent. triethanolamine. Repeated spraying at regular, gradually extended intervals for four days results in a sufficiently strong, pliable, elastic eschar that permits activity. Outpatients, consisting of those with burns involving not more than 20 per cent. of the body surface, are given the same preliminary attention as more severe cases and are sprayed frequently with the sulfadiazine-triethanolamine solution. The burns of such patients are then covered with sterile petroleum gauze or an ointment of 5 per cent. sulfadiazine and 8 per cent. triethanolamine in a stearin base. At 24 to 48 hour intervals, they return for removal of dressings, spraying with the solution, and the application of new dressings.

On the basis of information obtained from the treatment of 115 patients, it appears that the sulfadiazine solution does not injure skin, mucous membranes or granulating tissue. The drug penetrates rapidly after the solution has been sprayed on the burned areas, but absorption stops when the scar has formed. At this time, if desired, the drug may be given by mouth. Only two cases treated by this method showed evidence of infection—a really remarkable record.

At the University of Edinburgh, Robson and Wallace[18] have been working with a new paste containing glycerine and a soluble sulfonamide. The soluble sulfonamide chosen, known as "Albucid," was selected because it was known to be innocuous to tissues. To prepare "Euglamide" (the name given to the glycerine-sulfonamide paste), 5 Gm. of soluble albucid is mixed with 100 cc. of glycerine and the mixture is heated cautiously until the solid is dissolved; this usually requires about thirty minutes. While still warm, 10 cc. of cod liver oil is added and stirred in thoroughly. The solution is then mixed with about 80 Gm. of fine kaolin until a smooth permanent paste of the consistency of thick cream is obtained.

Since the investigation is of a preliminary nature, most of the work having been done with children, these workers do not recommend Euglamide as an alternative to tannic acid for extensive burns. However, it has proven very effective for the treatment of second and third degree burns of the face, hands and flexures where the effects of the coagulation treatment are undesirable. As a rule, an early healing surface was obtained, thus decreasing hospitalization time. The paste has likewise proved of value in burns which had become septic after coagulating agents were used. As with some other forms of treatment, isotonic saline is employed to cleanse the lesions, prior to the application of the glycerine-sulfonamide paste.

During recent months, considerable attention has been given to the "envelope method" for treating burns, particularly those of the extremities. Developed by Bunyan,[19] a Surgeon Lieutenant Commander of the British navy, the method consists essentially of intermittent irrigation of the burned parts with electrolytic sodium hypochlorite solutions under a waterproof envelope of coated silk. The value of the process has been checked by Bunyan in a series of about two hundred cases, but others have corroborated his claims and have even elaborated on them. Wakeley,[2] for example, in commenting on this method, emphasizes that it is easily and speedily applied, painless, requires no dressing, promotes epithelization which is readily observed, and allows free movement of the affected parts.

The envelopes are simple covers designed to extend over the affected limb, and means of inlet and outlet are provided so that the lesion can readily be irrigated, and are so arranged that they may be efficiently sealed to the limb. Various types and sizes are now being produced in England to fit over various parts of the body such as an arm, leg, foot, hand, elbow, etc. Sizes for children are also being produced.

The irrigating solution, electrolytic sodium hypochlorite was selected because it is non-irritating, nontoxic, dissolves dead organic matter, enhances transudation of serum and cells, exerts a certain degree of bactericidal action, and may be easily obtained at any time or place. Bunyan employed a proprietary one per cent. solution as a stock solution, to be diluted according to the strength required. A 5 per cent. solution, made by diluting one part of the stock preparation with twenty parts of water, was generally used for daily irrigations, but less dilute solutions were used at the beginning of treatment.

Following necessary preliminary preparations in second and third degree burns, including washing with more concentrated hypochlorite solutions, a suitable envelope is applied, inflated with oxygen and the inlets sealed. Routine irrigation with the 5 per cent. solution at 100° F. is begun the next day, the fluid being run through the envelope over the affected area for twenty minutes. This procedure is carried out three times daily, and after irrigation and drainage for half an hour, the envelope is again inflated. Variations in the procedure, to meet various specific conditions, are also described.

With this envelope method, Bunyan found that "pain is relieved; primary infection is prevented, and function restored at the earliest possible moment; primary shock is not aggravated, and secondary shock is minimized." Moreover, this method produces satisfactory results in small hospitals and special training is not necessary. Small units for electrolytically producing the necessary sodium hypochlorite solutions can readily be installed.

Hannay,[20] who made a comparison of this method with other burn-treating procedures, stresses that the great value of the envelope irrigation method is the almost definite certainty that nothing more than mild infection is likely to occur. This is something that cannot be claimed for any other procedure. The method had also successfully been used by Hudson,[21] not only in the treatment of burns, but also in therapy of ulcers and gangrene, severe lacerating wounds, and acute pyogenic lesions. Pearson and his associates[15] have likewise observed the advantages accruing from the use of the envelope technic.

However, it is now fully recognized that in the treatment of severe and extensive burns, local treatment is not the prime consideration, but that systemic therapy to save life by combating shock must first be undertaken. It is generally agreed that local treatment of a burn should never be undertaken until shock is well under control and that to apply any substance locally does not always help the patient and may complicate the surgeon's task.

In burn therapy, the treatment of shock is of the utmost importance. "With primary shock," writes Broster,[12] "the mortality is 2-3 per cent., whereas in secondary shock it is as much as 60 per cent. Primary shock is shown by low blood pressure, feeble pulse, and clammy skin. Warmth, oxygen, and fluids, and morphia for pain are given. Secondary shock comes a few hours later. Unless there has been concomitant hemorrhage, blood transfusion is no good, owing to the concentration of the blood, and blood plasma is given to replace protein loss and to prevent edema. The danger from shock is between 24-48 hours, after that, from toxemia, which comes on several days later. This is usually due to streptococcal infection."

Undoubtedly, one of the greatest advances in the systemic treatment of burns is the use of blood plasma. Plasma is the fluid part of the circulating blood as distinguished from the serum, which is the fluid which separates after blood coagulation. Serum has also been used,[22, 23] but present emphasis appears to lie with blood plasma. The disadvantages of citrated liquid plasma have been overcome by the use of frozen and dried plasma.[24] This has now become a most important medical item for both military and civil use, not only for employment in the treatment of burns, but also in other life-saving measures.

One of the major causes of shock and death after burns is the rapid and extensive loss of both tissue and especially plasma protein. Replacement of the latter is a life-saving measure and the transfusion of plasma is essential to maintain the circulation and to relieve the blood concentration.[25] Many other reports on the tremendous value of such plasma transfusions have appeared in the literature.[26, 27, 28]

Another important advance in the systemic therapy of burns, closely associated with blood plasma administration, is the employment of suprarenal cortical extract or its synthetic analogue, desoxycorticosterone acetate.[29] Desoxycorticosterone helps to quickly raise the serum sodium level to normal,[3] and Dennison[14] has used this synthetic extract to control toxemia which he considers the commonest cause of death from burns and scalds in childhood.

Use of adrenal cortical extract also reduces the amount of plasma required to restore the circulation to normal.[30] This is an important consideration, since supplies of this vital blood substance are rather limited. Indeed, Glover[29] has suggested that adrenal cortical extracts along with parenteral fluid may perhaps, to a limited extent, take the place of plasma.

The treatment of burns is now undergoing extensive study and revision. Despite the unfortunate circumstances which have greatly hastened the acquisition of this new knowledge, the information will prove of inestimable value in saving lives and preventing disfigurement.

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F. J. Stokes Machine Co., Philadelphia, have a new catalog which shows what they are doing in the tableting field as it applies to processing of chemicals, pharmaceuticals, and many other materials. It is profusely illustrated and adequately covers Stokes industrial tablet compressing machines. You should have it in your files.

Abbe Engineering Co., 50 Church St., New York, have published a new bulletin on the Abbe line of jar and bottle rolling machines for batch grinding or mixing process materials of all kinds.

SUMMER PREPARATIONS

By JOSEPH KALISH

Summer preparations, formerly exemplified only by sun screen and sun tan products, now must include insect repellents which have received much scientific study of late and are now in the process of proving their worth.

In selecting a screening compound for use in a suntan preparation, preliminary choice should be made from spectral data supplied by most manufacturers for their compounds. For adequate protection, there must be strong absorption at 2967 A. U., the wavelength of light giving the greatest erythemic response. If complete protection is desired, with prevention of both tanning and burning, absorption should cover the wavelength band from 2900 to about 3300 A. U. For those compounds designed to permit tanning without burning, absorption should not extend beyond 3000-3100.

Screens should also be selected with a view to their solubility characteristics—whether they are soluble in oil, alcohol, or water, since this largely determines the type of medium to be used.

Oils, because they are easiest, but not necessarily the cheapest to make, still hold part of the market. The oil-soluble screen, in the recommended proportion is dissolved (by heating if necessary) in the oil. A *small* amount of oil-soluble color can be added to tint the oil. An excess of color may be added to simulate tan, but may stain clothing and bed clothes. Mineral oil, since it is not subject to rancidity, is probably the most satisfactory vehicle in oil preparations, but it has no emollient value. In some cases it may be necessary to utilize a vegetable oil to dissolve the screen, and peanut and sesame oils are probably as satisfactory as any. The light absorbing value of the oil is generally small and should not be given much consideration in evaluating protection.

Transparent lotions consist of alcohol or water-soluble screens dissolved in water-alcohol mixtures. If the screen is soluble in alcohol, make a relatively concentrated solution and then dilute with water. Solubility will vary considerably, but mixtures can generally be made with from 40 to 60 per cent. of alcohol. A higher concentration than this may be irritating to some skins, while a minimum of about 30 per cent. should be present to increase the rate of evaporation. A few per cent. of glycerin or one of its substitutes are useful for emollient effect. Tannin may also be included, partly to relieve slight burn, but primarily to form a coating to assist the screen in adhering to the skin.

Creams should be quite soft to permit easy and uniform application and preferably low in oil to keep down greasiness. Probably vanishing creams based on stearic acid, glyceryl monostearate, or one of the other oil-in-water cream bases are most generally satisfactory. An oil-soluble screen is preferable, and is melted with the non-aqueous ingredients. A water-soluble screen may be added when emulsification is complete, but might separate after the cream has been rubbed on the skin and water evaporated.

Liquid creams merely present the usual problems in formulating a good product that will not separate. The liquid should be reasonably thick, so as not to run when applied to the skin. This, incidentally, is one of the disadvantages of the water-alcoholic lotions.

Since a certain number of persons are hypersensitive to sunlight, there is probably a small all-year market in this field. Sun-proof lipsticks for both men and women whose lips blister badly when exposed to the sun, have been well received. A nontoxic, oil-soluble screen is melted with the usual lipstick ingredients, the screen replacing part of the oil, and about double the usual amount of screen being used. Color should be omitted from sticks intended for masculine use.

The selection of perfumes requires considerable care. Since the skin when exposed to the sun becomes heated, it is more subject to the action of irritants, which should be carefully avoided. It is probably best to limit the choice to those odors recommended by suppliers for use in sun preparations.

An insect repellent to be generally acceptable should be odorless or have a pleasing odor; non-irritating when applied to the skin and harmless when breathed or accidentally consumed; have no deleterious effect on

clothing, such as staining, bleaching or weakening of the fiber; leave no objectionable "oily" appearance or feel on the skin, be economical, chemically stable, and—very important—repel mosquitoes and other biting insects. To this might be added that the repellent should spread readily, and have such consistency that it will adhere to the exposed body surfaces. Few, if any, present preparations fully meet these standards.

A check of the various reports indicates that among the repellents now available may be included various essential oils such as citronella, clove, cedarwood, eucalyptus, birch tar, pennyroyal, cassia and melissa. Many other chemical substances are likewise of known value: citronellol, caprylic alcohol, benzyl alcohol, geranyl acetate, linalyl acetate, terpenyl acetate, amyl salicylate and certain other salicylic acid derivatives, pyrethrum extracts, pine oils, certain glycols and derivatives and certain odorless, patented compounds such as dimethyl, diethyl and dibutyl phthalate. Also to be included are naphthalene, deodorized kerosene, menthol, camphor, phenol, creosote, tincture of wormwood, bay laurel and others. Employed in lotions, ointments, creams and powders, alone or in combination, these substances vary greatly among themselves with respect to their insectifugal efficacy and applicability.

Oil of citronella, despite the fact that its odor is displeasing to some people, still ranks among the most important insect repellent chemicals. Indeed, there are some authorities who consider citronella or preparations based on it to be of highest value. If the odor is objectionable, it may be covered by means of spirits of camphor or oil of pennyroyal.

Pyrethrum extract appears to be finding growing use as an insect repellent. In practical tests under different conditions, a mixture of equal parts of olive oil and pyrethrum extract gave effective protection against both blackflies and mosquitoes for periods of from one and one-half to four hours.

Several proprietary products have proven themselves to be highly effective and have been enjoying steadily increasing demand.

Finally, there is little to prevent the combination of sun screen and insect repellent in the same preparation and good promotional reasons for combining them. The vacationer, whether exposed to the sun on sea or lake shore, or likely to be bothered by insects in the woods and mountains, will be just as ready to accept combined action as he now is to use sun tan products.

F.D.A. OPINION

"We note that the proposed label for this preparation designates it as 'Ointment . .' Since . . is chemically diphenylene amine and is not contained in this preparation, it would appear a more appropriate name should be selected. In order to comply with section 502(f) of the Act the label for this preparation should bear a warning statement in some such manner as 'Warning: This is a dangerous drug and may cause serious toxic effects. Flush wound thoroughly should toxic effects occur.' '. . Ointment' is in every respect a new drug and physicians generally may not be familiar with the manner in which it can safely and efficaciously be used. In order that physicians may have adequate information with respect to safe procedures for the administration of your preparation it appears that you should make available to them printed material which discusses in detail the therapeutic indications and limitations of the drug, the amount and method of administration to be employed, and possibly toxic effects which may ensue. This printed material should inform the practitioner that if in addition to local application supplemental oral administration is to be used, care should be taken to determine the blood levels of sulfathiazole. The statement 'Caution: To be used only by or on the prescription of a physician' should be retained on your label and should be accompanied by a specific reference to the printed matter which is distributed directly to physicians."

THE NEED FOR VITAMINS

By L. STAMBOVSKY

THE recent phenomenal disclosures in the field of nutrition are changing our concepts of health and disease. It can now be said that comprehensive nutrition is the keystone upon which is dependent the normal development and efficient maintenance of the skeletal, muscular, glandular and neurologic systems. Optimum function is manifest by well developed bodies, good muscle tone, youthfulness, stamina, longevity, freedom from disease and a full capacity for life in general. Inversely nutritional deficiencies and errors are, directly or indirectly, in a major degree, etiologic in the production of nearly all pathology—irrespective of whether such be evidenced as neoplastic disease, bacterial invasion, toxemia, functional disbalance, or just an untimely wearing out of one or more organs.

Admittedly the above statements cover a lot of ground and quite frankly are coldly received by many members of the medical fraternity. It is beyond the scope of this discussion to present even in briefest abstract the vast amount of existent clinical and experimental proof of the above. Convincing and amazing confirmation may be found in the thousands, (8,000 up to October 1940), of nutritional references published in "Quarterly Cumulative Medicus," "Chemical Abstracts," "Biological Abstracts," "Nutritional Abstracts and Reviews." A review of this immense amount of clinical and experimental research cannot fail to imbue one with at least a dawning realization that herein lies the cause and cure of most of the ills of Man.

Widespread Deficiency and Deterioration of Public Health

According to the U. S. Public Health Service, 40 per cent. of the country's population suffer from inadequate nutrition. Quantitatively, most Americans get enough calories in the form of carbohydrates, which incidentally constitute 50 per cent. of our food intake. But refined sugar and starch, while they are energy sources, provide little or no accessory or vital food factors. Much more important than mere calories are the proteins, fats, vitamins and minerals. Since half of our food intake consists of white flour and sugar, it is clearly apparent that the most vital phase of nutrition, i. e. the proteins, fats, vitamins and minerals have been in a great measure displaced by a non-vital dietary.

Neil and Bloomfield of the U. S. Public Health Service estimated that 350 million man-days were lost last year among industrial workers because of illness and accident. Certainly not more than 10 per cent. of this figure is attributable to accident—leaving a staggering number of days of unproductivity that may be laid at the door of colds, constipation, headaches, exhaustion and a number of other clinical and sub-clinical syndromes. This industrial loss becomes still more plausible upon focusing our attention on the common cold. Four hundred million colds annually cost America $500,000,000, (Bruce Bliven, "New Republic," December 15, 1941). Even though this claim may be somewhat exaggerated, it must be remembered that colds are but one of a number of debilitative disorders that account for the industrial losses mentioned above. The colossal technical and medical literature is replete with irrefutable evidence that these very pathologies which exacted such a grievous toll among America's workers can be prevented, mitigated and cured by comprehensive nutrition. Why shouldn't we employ *now* this forward march in the realm of preventive medicine? At this crucial hour when we must strain every resource to annihilate "the yellow peril" and to burst forever the psychopathic bubble, "Deutschland Uber Alles," any physical deterioration is an intolerable handicap to our defense effort. It is not enough that we are merely not sick. America needs every citizen in peak condition. War today is a race of production. The hand, the eye and the brain of our industries must be faster, keener and more resourceful than ever before. And yet we cannot do our best while widespread hidden hunger exists.

McCormac, Med. Rec., 152:439, conducted "in vivo" experinents along these lines with vitamin B_1. Athletes in better than average condition were given optimum doses of thiamine a few days prior to the tests. In every instance there was a strong increase in physical output—even as high as 200 to 300 per cent., as evaluated by breath holding ability, swimming stamina and other forms of physical endurance. This reference is indus-

The A. M. A. belittles the need for vitamins taken other than as natural components of foods. In the opinion of organized medicine everyone can have a balanced diet containing all the necessary vitamins, minerals and fats for the asking. This article clearly shows that auxiliary vitamins are vital to maintenance of good health.

trially significant. If these college athletes who unquestionably are in better condition than the average worker, responded so markedly to but one of a number of inter-dependent nutritional biochemicals—it is logical to conclude that the population in general and industry in particular would favorably respond to an increase in dietary adequacy—artificially or naturally supplied. Enriched bread is a feeble but none the less a forward step in this direction. Much more can be and should be immediately done.

Further Evidence of Widespread Deficiency

Many general practitioners and even medical leaders in high places still ridicule the U.S.P.H.S. statistics regarding the prevalence of incompetent dietary. With decreasing intensity are heard the familiar echoes, "American diets are all-inclusive," "Vitamins are a transient fancy," "It is impossible for the rich American table to be deficient," etc. There is some justification for the above attitude. The practicing physician is so absorbed with the problem of diagnosis and treatment that he does not have the time nor energy to keep immediately abreast of developments in all fields of science, especially the commonplace subject of foodstuffs. We sympathize with the general practitioner. The mass of medical literature by itself, absorbs his few free moments and to expect him to wade through endless nutritional references is out of the question. However, the physician must increase his interest in nutrition or permit the public to seek elsewhere information on the subject. There are still other reasons for medical indifference.

Specific or acute avitaminosis such as scurvy, beriberi, pellagra, rickets, osteomalacia, and tetany are comparatively rare. The illustrative of their infrequency is the report of the U. S. Census Bureau wherein it is stated that the total deaths in 1938 from these causes was but 3,637. If the general practitioner judges the prevalence of nutritional disease from these rare cases, then naturally he is of the opinion that all is well with our diet. But what of the millions of sub-clinical cases—persons who are not sufficiently ill to require medical aid, yet who are really not well? This condition is aptly termed, "sub optimum" health and does not fall within the range of the physician. The reason therefore is very human—why go to a doctor unless forced to. Why not wait until sub-clinical symptoms eventuate into real distress or incapacity and then visit Dr. Jones. Such is the reasoning of the average person.

We list below in tabular form the mild and extreme deficiency symptoms of the more common nutritional bio-chemicals and essentials. It becomes obvious from this tabulation that everyone has at one time or another experienced or continues to tolerate some of these states. Combined or acute avitaminosis assists in the development of or result in the run-of-the-mill pathologies from allopecia to xeropthalmia. As we have already outlined, because of the cyclonic speed with which the science of nutrition has grown, and because of the inherent but regrettable tendency on the part of medicine to resist new and simple facts that did not emanate from the A. M. A., medicine as a whole is not yet sufficiently schooled or even willing to concede the possibility of a nutritional ideology for much of the disease with which its efforts are concerned.

Deficiency Symptoms

	Mild	Extreme
Vitamin A	Retarded Growth	Xeropthalmia
	Gastro-Intestinal Disturbances.	Severe Night Blindness.
	Low Resistance to Pathogenic Invasion.	Loss of Weight.
	Keratinization of epithelial cells	Extreme Susceptibility to Infection through eye, tongue, alimentary, respiratory, urinary, tracts, sinus and bladder.
	Cutaneous Eruptions.	
	Impaired Function of Visual Purple or Night-Blindness.	Nerve Degeneration.

Vitamin B_1 (Thiamin)	Retarded Growth.	Beri-Beri.
	Lassitude.	Polyneuritis.
	Cardio-vascular Disturbances.	Atrophy of Musculature.
	Loss of Appetite.	Loss of Weight.
	Gastro-Intestinal Dyscrasia.	Gastro-intestinal hypotonicity.
	Nervous Irritability.	(Impaired Digestion, Constitution).
Vitamin B_2 (Riboflavin)	Photo-phobia	Cheilosis (Lesions at corner of mouth).
	Granulation and redness of conjunctiva.	Sharkskin (Lesions of nose).
	Impaired growth.	Conjunctival manifestations associated with vascularization of cornea.
	Lack of Vigor.	
	Seborrheic skin lesions.	Cataract.
		Loss of Weight.
		Neurasthenia.
		Loss of Hair.
		Glossitis.
Vitamin B_6 (Pyridoxin)	Retarded growth.	Dermititis.
	Muscular incordination.	Impaired growth (experimental animals).
	Edema.	Microcytic Anemia in dogs.
	Symptoms associated with pellagra	Extreme nervousness.
		Insomnia.
		Irritability.
Vitamin E (Alpha-Tocopherol)	Low Fertility.	Failure of Male germ cells to develop.
	Impaired placental-function.	Sterility.
	Musculardystrophy	
Vitamin K	Prolonged coagulation time.	Hemorrhage.
		Anemia.
Vitamin P-P (Nicotinic Acid)	Nervous disturbances.	Pellagra.
	Soreness of Mouth.	Skin eruption.
	Indigestion.	Soreness of mouth.
	Constipation.	Indigestion.
	Anorexia.	Severe neurestheнia leading to insanity.
	Nausea.	Redness of tongue.
	Headache.	
	Loss in weight.	
	Dizziness.	
	Confusion.	
	Insomnia.	
Vitamin C (Ascorbic Acid) (Cevetanic Acid)	Retarded growth.	Scruvy.
	Defective teeth.	Superficial hemorrhages.
	Defective bone repair.	Lesions of gums.
	Headache.	Bleeding from nose and mouth.
	Low resistance to infection.	Soreness of joints.
	Digestive disturbances.	General weakness.
	Restlessness.	Emaciation.
	Delayed healing of wounds and weak repair.	Edema.
		Loose teeth.
		Fragile bones.
		Gastric ulcers.
		Delayed and poor healing of wounds.
Vitamin D	Poor assimilation of calcium and phosphorous.	Rickets.
	Bow legs.	Misshapen bones.
	Predisposition to dental caries.	Beading of ribs.
		Hypertrophy of wrists and elbows.
	Restlessness.	Delayed eruption of teeth.
	Lack of vigor.	
	Poor growth.	Spasmophilia.
		Osteomalacia.
		Delayed or non-union of fractures.
Panthothenic Acid	Deficiency state not proven in man. Presence in many foods suggests it as a supplement in deficient diet.	
	Thought to be essential for growth and life.	
Paramino benzoic acid.	Anti gray-hair factor.	
Inositol.	Anti-allopecia factor for mice.	
Calcium.	Poor development of skeletal structure.	
	Rickets.	
	Dental caries.	
	Bleeding.	
	Nervousness.	
Copper.	Anemia.	
	Imperfect utilization of iron.	
Iodine.	Sterility.	
	Glandual disfunction.	
Iron.	Anemia.	
	Pallid complexion.	
	Retarded growth.	
Phosphorous.	Poor development of bones and teeth.	
	Retarded growth.	
	Loss of weight.	
	Rickets.	
Essential Protein.	Poor development.	
	Hypotonicity.	
	Low muscle tone.	
	Atrophy of musculature.	
Essential Fatty Unsaturates	Dandruff.	

Dry skin.
Loss of dermatologic tone.
Impaired resistance to infection.

Further Demonstration of Widespread Deficiencies

The U.S.P.H.S. statistics covering the extent of malnutrition are very conservative. Overwhelming evidence to this effect may be found in the existence of the gigantic proprietary drug business or the business of self-medication. Non-secret and well-known medicines such as cascara, brown mixture, baking soda, etc., should be included in this classification inasmuch as they are usually employed without the advice of a physician. America's total drug bill for 1929, (Cost of Medicine, Rorer & Fischelis), was $715,000,000. Only 27 per cent. of this total was spent for physicians' prescriptions. The balance or $525,000,000 was obtained from customers who did not feel the necessity to seek medical aid. These persons, judging from the figures cited, must run into many millions. Consequently we have here a vast army of people who, while not acutely ill, are certainly not 100 per cent. well, that the physician never contacts and is therefore in ignorance of. Obviously, medicine is not qualified to state in any degree the absence or prevalence of sub optimum health. It would be interesting to break down the expenditures for different types of medication but unfortunately such figures were not available. But any drug clerk knows that millions were spent for analgesics in the treatment of countless headaches; many more millions are annually exchanged for laxatives and the treatment of not occasional but chronic constipation; still more millions were expended for cough mixtures, nasal preparations, throat lozenges and other products for the symptomatic relief of colds; tonics also get their share of America's income in an effort to get rid of that tired feeling; possibly the most important of all is the incalculable bill engendered by dental caries—which more and more are being viewed as of dietary origin—primarily carbohydrate excess; the gastro-intestinal tract is instrumental in the conversion of further millions into antacids, digestants and other acids.

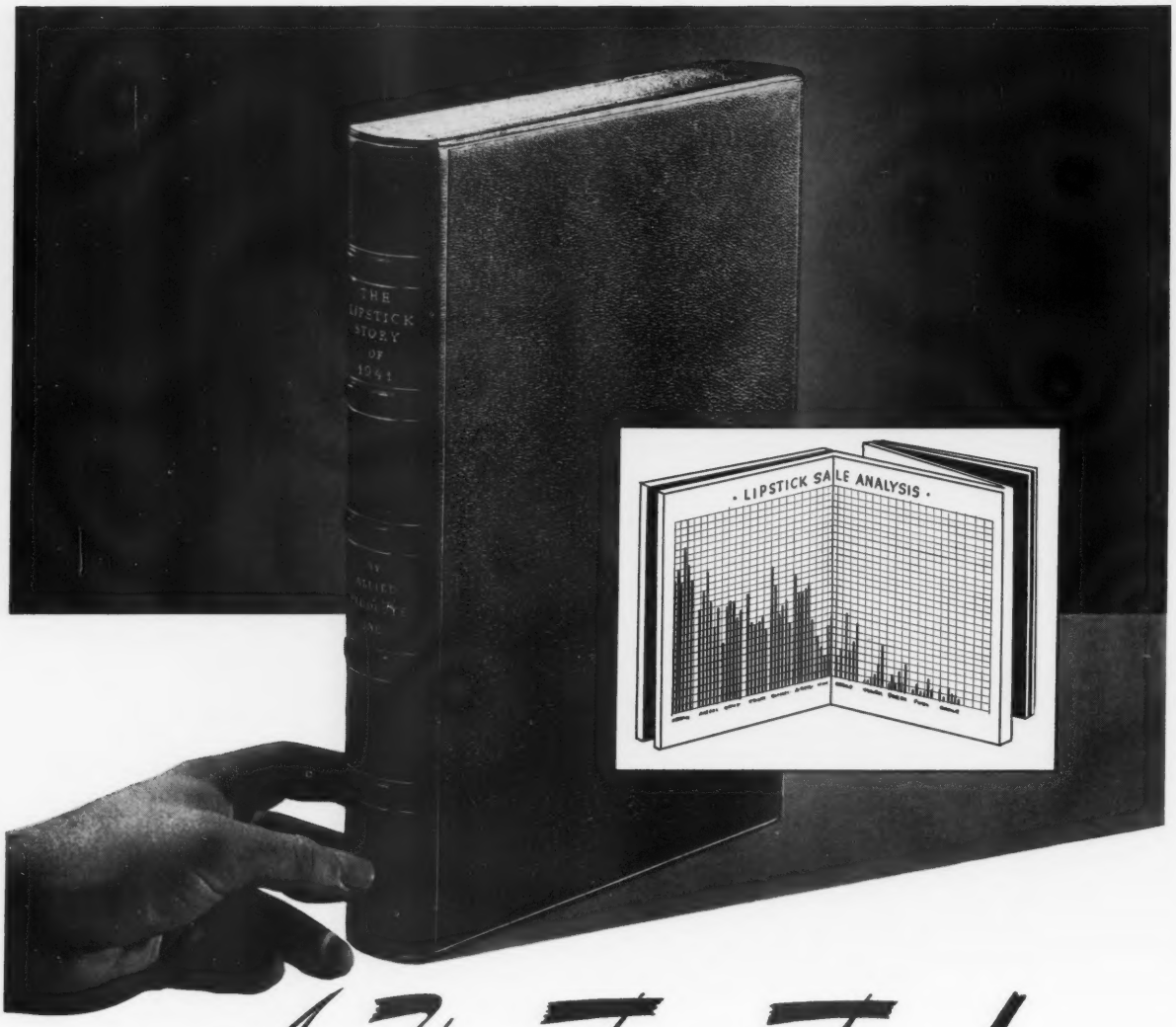
The foregoing is not a tirade against the drug business or retail pharmacy. The correction of those maladies for which these patent and home remedies were sold, constitute a public service of no little magnitude and of which the industry might well be proud. But the essence of this exposition is the question, "Why was it necessary for the American people to spend the unbelievable sum of $525,000,000 for self-medication?" No one can say that the myriad daily headaches are normal or that man's sewage system was so imperfectly designed as to require constant outside assistance to function. Anemia with its telltale fatigue and pallor is certainly not a part of nature's design—nor are colds, coughs, coryza, impaired digestion, poor skin, nervousness, and other of the complex syndromes, characteristic of health. It is admitted that the wear and tear of civilization with its perversions and distortions of natural laws is partly, but only in minor degree, accountable for some of our modern pathology. In the light of newer knowledge we now know that the real culprit is inadequate nutrition—more specifically excess of carbohydrates and insufficient fats, proteins, vitamins and minerals.

Why Impoverish Food?

There is no longer the question of whether or not our dietary is comprehensive. We have briefly proven that it is not. To what factor or factors are attributable our inadequate dietary? Fundamentally, certain evolutionary changes are herein concerned. Man was born omniverous. For those who are doubtful of same it is but necessary to point out that diabetes, an appreciably common disease, is merely the abuse and subsequent exhaustion of a comparatively limited property—the power to digest carbohydrates, which are the basis of all herbivorous foods. Man's ability to consumer proteins and fats are within reasonable limits continuous throughout life. This seems to indicate a physiology that was constructed for omniverous and not herbiverous foods. However, as time went on and a species of homo genus increased to such an extent that there was no longer enough animal foods to go around. With characteristic ingenuity, Man turned directly to the earth for food, which was plentiful and easy to obtain. The birth of agriculture ensued—dating back about 7,000 years. But man's physiologic evolution has not kept up with this change in food habits. The herbiverous animals have large stomach capacity for the consumption of voluminous quantities of grains, fruits and vegetables. The capacity of carniverous animals, including man, was geared to the relatively concentrated fats and meats of animals. On the basis of equal volumes unconcentrated nutriment of vegetable origin contains but half the energy value of animal fats, none of the structural value of animal proteins and on the average, but a fraction of the vitamin and mineral content of carniverous foods in general. This changeover from carniverous to omniverous habits is a first step in the explanation of the modern paradox—malnutrition in an oasis of plenty.

Why and Where Does Qualitative Depletion Occur?

American foods are the richest and most plentiful on earth. The factors responsible for impoverishment are manifold and complex. We have already discussed the transition from carniverous to omniverous habits. It becomes even more relevant in view of the following: vegetables, fruits and grains are at best as compared with foodstuffs of animal origin, an inferior source of minerals, vitamins, energy and repair substance. But vegetable foodstuffs under modern conditions are subject to still further depreciation. The time required for long-distance transportation necessitates the marketing of unripe fruit which, of course, does not possess the mineral and vitamin content of naturally matured fruit. Large scale distribution forces the employment of cold

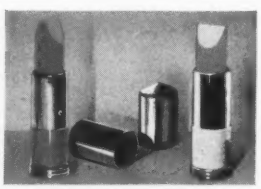


At Your Finger Tips!

What the dictionary is to the writer . . . what the navigation chart is to a pilot . . . consumer surveys are to cosmetic manufacturers. Properly analyzed and applied, these surveys direct his efforts toward keeping his line keyed to fashion . . . to demand . . . and PROFITS!

The APLI chart breaks down production of many millions of lipsticks in all shade groups popular over recent months into *twelve major classifications.* These production figures are an accurate summary of what Milady has preferred in lip color—and become the basic means by which to anticipate her future demands.

A presentation of this factual data to cosmetic company executives will be gladly arranged when an appointment is requested. Important informative material is also available on the subjects of preferred texture, yield and indelibility. Also obtainable, at no obligation, is the complete set of twelve composite lipstick shades prepared from each group of the twelve major lipstick classifications.



BE RIGHT WITH ALLIED . . . Allied manufacturing routine emphasizes rigid analysis by trained specialists before a single shade is released for consumption.

ALLIED PRODUCTS, Inc. 30 ROCKEFELLER PLAZA, N. Y. C.

MAKERS OF THE WORLD'S FINEST COSMETICS AND TOILETRIES • PRIVATE BRANDS EXCLUSIVELY

PLANT AND LABORATORIES: SUFFERN, NEW YORK

LBERT
ERLEY INC.

Herman M. Appel

Presents

Magnolia Blossom "V"

for your success with the popular Southern Motif

Magnolia is of more than passing interest, in the fashion trend toward popularizing the fragrances of fine American flowers. Therefore it is fitting that Magnolia Blossom "V" shall take its place beside Jasmin Blossom "V" and other new successes of the House of Verley, which promise to end forever the dependence of America upon foreign material sources.

It is unnecessary to be burdened with the high cost and uncertainty of supply of the natural products, when these totally synthetic creations so nearly approach absolute perfection. You can be assured of enthusiastic approval among your most discriminating clientele, when you employ Magnolia Blossom "V" as the odor motif for a single product or a complete line. Write today for working samples and prices on this truly American creation.

Albert Verley inc.

AROMATICS

ALBERT VERLEY, INC., D. A. BENNETT, *President* · 1621 CARROLL AVENUE, CHICAGO, ILLINOIS
114 EAST 25TH STREET, NEW YORK · MEFFORD CHEMICAL COMPANY, LOS ANGELES

Herman M. Appel

PRESENTING

MOTIF "V"

. . . a potential best-seller by Albert Verley, Inc.

Here one steps into nature's hothouse where the very atmosphere emits its heady fragrance. The smell of the fresh, damp earth combines with the scent of fernery, vegetation, and grasses, and with the perfumes of its exotic flowers—Rose, Orange, Carnation, the fragrant Lilies, Cape Jasmin, Wisteria, Magnolia —all of which blend into a perfect aroma which only a tropical garden can produce. Write for working samples and prices.

Albert Verley inc.
AROMATICS

ALBERT VERLEY, INC., D. A. BENNETT, *President* · 1621 CARROLL AVENUE, CHICAGO, ILLINOIS

storage permitting oxidation and time to wreak still further destruction. Exhausted soil, the matrix of fruits and vegetables cannot do otherwise than yield low vitamin and mineral content. Sun-dried fruits by virtue of heat, oxidation and actinic effects undergo high vitamin losses. Animal foodstuffs withstand deleterious conditions much better and are not subject to as many as the above.

Canning, a necessary phase of modern living, is another source of vitamin deterioration. According to Drs. L. B. Pelta and M. M. Cantor, Department of Biochemistry, University of Alberta, Edmonton, the following losses occur:

Vitamin A	10-50 per cent.
Vitamin B_1	Appreciably destroyed in all canning and cooking. Loss in acid media 5-15 per cent.; alkalin media up to 80 per cent.
Vitamin C	Variable, stable in some foods, completely destroyed in others.
Vitamin D	Not important in canned foods.
Riboflavin Nicotinic Acid	5-15 per cent.
Calcium Phosphorous	Precipitate during canning. Lost through adherence to metal or insolubility in gastro-intestinal tract.

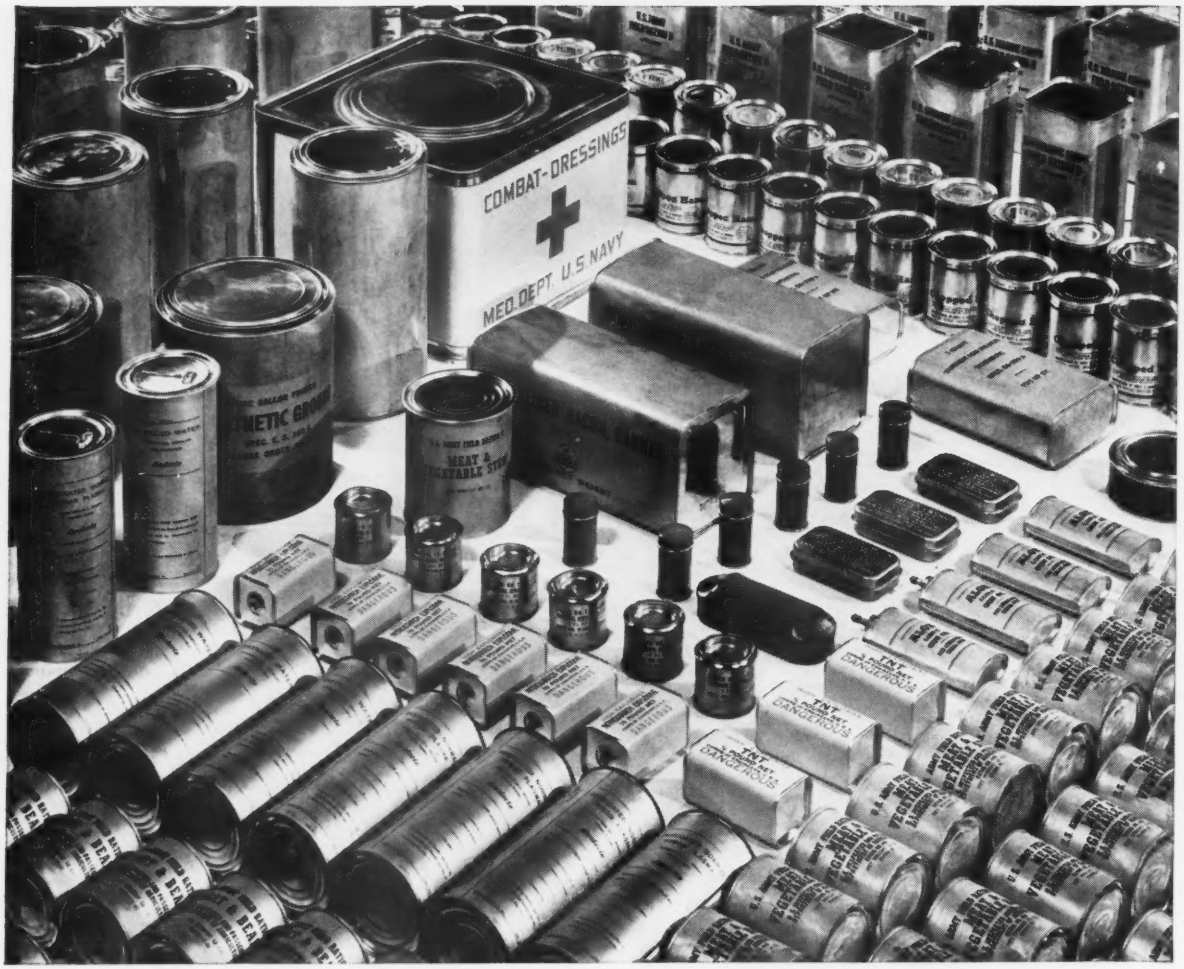
These authors further state that increased destruction must occur inasmuch as the foods must be again heated before serving.

A Limited economic status is worthy of a place in the dietary picture. Thirty-two per cent. of America's families have an annual income of less than $750, (A Summary in Yearbook of Agriculture, U. S. Dept. of Agriculture, 1939). This means that three out of ten families do not have sufficient funds to permit the consumption of the barest minimum of protective foods such as visceral organs, meats, milk, eggs and vegetables. In the more favored socio-economic strata, excess candy, pastry and other ultra-refined gastronomic temptations displace the more simple but fundamental foods. The substitution of natural fats, such as butter, corn oil and animal fats, by cheaper, synthetic, non-vitamin and non-assimilable fats. This is one of the main causes of fat starvation with resultant dermatologic repercussions. Destructive culinary practices are guilty of extensive damage to what was originally good food. Heat and the presence of alkali inactivate vitamin C, B_1, and B_2. Fruits and vegetables cooked in water lose both through heat and solution in discarded cooking media. Frying and other heat treatments of meats reduces the B Complex content by about half. The multiple processes involved in producing dishes of ultimate visual appeal, and the creation of exotic concoctions divorced of any relationship to the original foodstuff, and in the contant striving for maximum taste stimulation, concertedly de-vitimanize and denature nutriment so treated. Modern milling practices and bleaching removes or destroys carotene, B complex and other vitamins and minerals contained in the cereals. Excess use of white flour and white sugar—as already stated, constitute 50 per cent. of America's calorific intake, are totally devoid of any mineral or vitamin content. Still other factors involved in the production of nutritoinal disturbances are personal idiosyncrasies, faddist diets, weight reduction, psychotic aberration, impaired digestion and a number of other syndromes such as pregnancy, fever, glandular disfunction toxemia, etc. Another but recently recognized source of depletion is the common mineral oil habit. Vitamins A and D are more freely soluble in this hydrocarbon than in the bowel content—resulting in a transfer to the oil and subsequent loss. High carbohydrate intake throws increased demands for B Complex for its metabolism which serves still further to deplete the body of this factor—which should have been but was not supplied simultaneously with the carbohydrate ingestion.

Elimination of Nutritional Diseases

We have briefly depicted the extent and cause of nutritional deficiencies and errors. What is the quickest and most feasible method of eliminating this insiduous detriment to our national health? A thorough reform of those culinary practices accountable for destruction and removal of food accessories would eventually result in a substantial improvement. However, an appalling amount of education and time will be necessary to achieve much success along this line. The increased consumption of animal products would be a distinct advance but unfortunately economic limitations prohibit more than a minor relief by this means. Any appreciable transition from animal to other classes of foods becomes doubly difficult when it is realized that per calory the cereals cost one half to two-thirds less than any other source of energy. Wider consumption of vitamin-bearing vegetables would unquestionably be of worthwhile benefit. Authorities claim that a good diet should contain at least 200 grams of vitamin-bearing vegetables. This is impossible inasmuch as the present supply in the United States could apportion only 70 grams per capita, (Stiebling, H. K. & Clark, F., Planning for Good Nutrition, U. S. D. A., Food and Life, Page 28).

Education as to more efficient food selection along the lines of figuratively less cake and more cheese, will be a powerful curative influence but again will require precious time. The present emergency has produced almost universal increased mental and physical stress which in turn are being manifest in the form of tension, gastro-intestinal impairment and other dyscrasia—all factors demanding increased vitamin intake. For the immediate present and as a national service supplementing the American dietary with those nutritional biochemicals and minerals of known deficiency is a positive necessity and would be a long step towards the rapid completion of our national defense.



SOME "NON-SECRET" WEAPONS THE AXIS WOULD LIKE TO HAVE

Study the Labels on the cans and packages in the picture above.

On some of them, you'll notice "Army Sliced Bacon, Canned . . . U. S. Marine Corps Field Ration D . . . U. S. Army Meat and Vegetable Hash . . . TNT Dangerous, Corps of Engineers."

There's a container for dried human blood in the picture, too. For transfusions in the field. Another to house a delicate motor on anti-aircraft guns.

And while you'll be interested to know that these articles are some of the many defense items the containers for which are made by the can-making and packaging industries, their significance goes far beyond this simple fact.

For they are weapons. "Non-secret" weapons, if you will. And every country has them. *But the Axis would like to have ours.* Do you realize why?

The industrial resources that produced these "non-secret" weapons are the largest in the world. The Axis needs those resources.

It needs the men . . . the machinery . . . the skill . . . the research that make the quality and the quantity of these weapons possible. It needs the energy of the free, unregimented economy which produced these weapons.

We Americans can congratulate ourselves that the Axis hasn't these resources . . . that we—not the Axis—have built the greatest packaging and can-making industries in the world . . . that we are now using the sinews of these industries to resist aggression. American Can Company, 230 Park Avenue, New York, N. Y.

MERCHANDISING NEWS and PACKAGING NOTES

MORALE AND COSMETICS: Revlon, who apparently was among the first of the cosmetic manufacturers to emphasize the importance of cosmetics to morale in its advertising, using the slogan, "Morale is a Woman's Business," continues along this line. In its promotion material giving a fashion forecast for American women at war, Revlon says: "Once we might have underestimated the lovely American hands that have been content to revel only in their beauty. But not now! They are busy, in the thick of things—all ten pretty fingers plunged deeply and earnestly into the big civilian defense pie of fire-fighting, air raid work, first aid, canteen duty, and even mechanical work! . . . . So many inquiries have been pouring into Revlon's office about women in war that the following credo for these American hands has been released: Fingertip length: Beautifully and gracefully tapered medium lengths. Long, yes, but not that extra long impediment-to-work kind. And because fingertips are constantly under public observation, flawless grooming will be the watchword for all fastidious women who today are putting beauty first in their personal line of defense—women who know that Morale is a Woman's Business! You and color in make-up: American has taken a lesson from the British who tried to ration beauty. Here in America there will be no let-down of color in make-up. The British authorities proved conclusively that women were able to do twice as much work, and better work, when they were allowed lipstick and nail enamel to keep their glamour intact for the homecoming husband or sweetheart on furlough! Revlon also states that just because this is wartime, women who adore and swear by a gay shade of nail enamel and lipstick, such as Rosy Future, need not change to a delicate Windsor, or visa versa. Especially not if the preferred choice does that 'something' to lift her chin and put a sparkle in her eye that triumphantly says 'I can take it!' Come spring, however, there will be a tendency toward shades complementary to the universal blue of civilian defense uniforms and perennial blue and beige appearing at Easter. For instance, on the deep red side there is Rosy Future or Raven Red. On the brighter side, Scarlet Slipper (vivid burnished red), and Tringar (dark blue red). Muted shades that blend well with blues are Savoy (soft mauve red), or Jueltone (beautiful orchid red). Flattering to all skin colorings and costumes, day or night, is delicate rose-tinged Hothouse Rose. . . . . "

THE COSMETIC TREND: Uncertainties about deliveries, prices and the appearance of cosmetics notwithstanding, buyers move on the assumption that 1942 demand will outdo 1941 on many items at rates varying from 10 to 20% according to item. While the laboratories have their worries, counters have not suffered and retailers do not expect real difficulty with their customers. Purchasing power continues to expand and is laying a sound foundation for increasing sales of medium priced cosmetics, which are gaining noticeably in some stores upon low end merchandise.

Most stores report good results with special promotions. Consumers' interest, which centered largely on durable goods at the start, is turning now to soft goods and luxury lines, cosmetics included. This creates a sellers market for cosmetic gift ware and novelties. Owing to manufacturing difficulties, connected with the supply of metals, plastics, etc., buyers are not always satisfied with the quality of what they receive. However, few actual complaints are made. Novelties are getting more numerous and in some cases substitute for established articles.

Buying trends are influenced by a number of factors. They are more closely watched than ever by store buyers because of their possible effect upon seasonal promotions. Size plays an important role in many purchases. Small packages seem to get smaller but the trend is to the bigger ones as women begin to stock their reserve shelves with favorites. This trend is generally encouraged upon counters because of the resulting saving in packaging and the advantage of the more profitable transaction. Much depends upon the clientele of the store. However, even the five and ten cent stores push their double sizes. Such personal articles as lipsticks, compacts, etc. are bought as much for the color of the package as the shade of the contents. Refills for vanities etc. are likely to be more in demand as containers become more expensive or are not readily available. It is difficult to obtain exact information as to whether present conditions have slowed down the

rate of consumption of bought cosmetics. Taking repeats as a guide, it seems to be as before. Larger volume is practically entirely due to more customers and larger earnings.

Definite fashion trends, as shades of make-up, nail polishes or scent preferences are nearly absent. As buyers see it manufacturers, dependent upon raw material supplies, dyes etc., are inclined to leave well enough alone and probably will not move unless forced. This does not mean, however, that one or the other important trend will not develop later in the year. If it does buyers think that it will be dictated by production necessities rather than the choice of the customer.

THE ECONOMICS OF ADVERTISING: Advertising for individual companies is most effective when one or more of the following conditions are present: if the industry's sales are expanding; if the products offer opportunity for differentiation like cosmetics and automobiles as opposed to sugar and sheets where brands tend to be similar; if the hidden qualities of the product are more important to consumers than external ones; if the company can use emotional appeal in its advertising; according to Professor Neil H. Borden of the Harvard School of Business Administration, reporting on the results of a four-year study to a meeting of the American Marketing Association.

According to Professor Borden, the accumulated facts prove that advertising and aggressive selling have helped to bring a tremendous expansion of new and improved products upon which technological development and increasing investment have depended.

Professor Borden said his study revealed same instances of increase in the costs and prices of merchandise as a result of advertising, but that for most products price competition has served to hold advertising costs at relatively low points. The growth in material welfare, due to advertising practices, he asserted, was far in excess of the costs entailed.

"The evidence shows that advertising use is accompanied by certain dangers," Professor Borden declared, "particularly those attending the tendency of business men to compete in advertising and thus to bring into price a large amount of selling costs, but on the other side of the ledger are important offsetting contributions.

"Advertising's outstanding contribution to consumer welfare comes from its part in promoting dynamic, expanding economy. Advertising's chief task from a social standpoint is that of encouraging the development of new products. It offers a means whereby the enterpriser may hope to build a profitable demand for his new and differentiated merchandise which will justify investment.

"From growing investment has come the increasing flow of income which has raised man's material welfare to a level unknown in previous centuries."

LEG STICK: Another way of "drawing" on a pair of stockings has been introduced by Helena Rubinstein with "Leg-Stick." It is not a lotion, nor a cream—it's a foundation in stick form—a make-up which goes on the legs as quickly as drawing on a pair of stockings. The stick foundation pushes up out of its red and white container and it is simply applied in

long, smooth strokes, followed by smoothing with a piece of tissue or the palms of the hands. It helps conceal blemishes, veins, and imperfections, and is suggested for bare-legs or under sheer nylons, silk or lace stockings. There are some 25 to 30 "wearings" in one Leg-Stick which retails for $1. Noteworthy is the fact that Leg-Stick is waterproof. The application should dry for a few minutes after it is applied. One application gives a light golden beige tone, another a darker shade. The shade is regulated by the number of applications. It can also be used on arms and neck to even out a spotty tan.

PERFUMED INK, REMEMBER: If anybody's keeping a running account of the perfumed ink thing, the Sweet Candy Co. (unusual name!), Salt Lake City, ran an add in red and green in the Desert News and red ink was perfumed with peppermint.

If you can remember back to the depression, when so much red ink was spilled, you will probably wonder why nobody thought of perfuming it with scallions.

METAL CONTAINERS: Metal lipstick containers, compacts and vanity cases received an additional period of grace through an O.P.M. amendment to the Copper Conservation order which permits manufacturers under certain circumstances to use to a limited extent partially fabricated metal before March 31, 1942. To avail himself of this extension, each metal goods manufacturer had to file before December 31, 1941 a form (P.D. 189) and it is pointed out that this does not mean he may cut into any sheet metal in stock, but simply that he may finish work which he had partially fabricated.

The zoo that let the bars down on packaging

SUPPOSE you are strolling in the famous Bronx Zoo. Suddenly you stop, stare, rub your eyes.

Right in front of you are a dozen or more loose lions. There's nothing between you and them to keep you from becoming their next meat course. What would you do?

Well, if you were really jittery, you might head for the nearest tree. But if you took a close look, you wouldn't. You'd see a wide, dry moat, 16 feet deep, that keeps the lions in their place, perfectly harmless. A new departure? Certainly.

For there are no bars in the lions' cages at the Bronx Zoo today. In fact, there are no cages. The lions retire to houses that look like the stockades of Africa.

There's a new packaging idea for you! The old gave way to the new—and proved to be mighty successful.

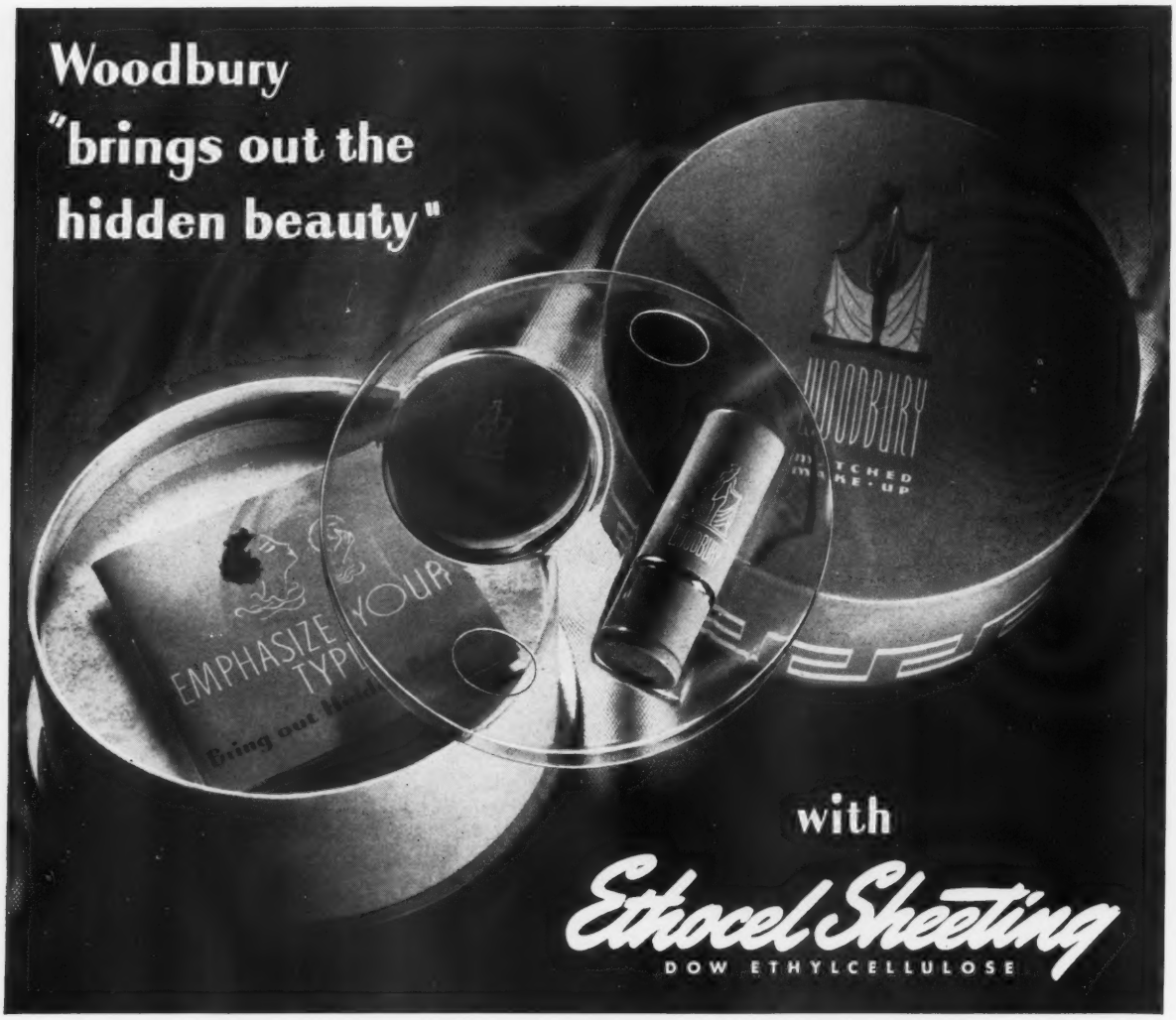
Often a new packaging idea will lead to bigger and better sales for manufacturers. That's why Continental's packaging experts devote so much of their time to creating new and better packages, new designs, new uses of color.

Continental is a pioneer in creating packages that sell. And we develop containers for consumer convenience, product protection, high-speed filling, and other factors that affect the balance sheet.

Our packaging experts know every angle of packaging—from construction to marketing. Whenever you have a packaging problem, why not call for Continental? We are always at your service.

CONTINENTAL CAN COMPANY

New York Chicago San Francisco Montreal Toronto Havana



DOW'S TRANSPARENT SHEETING DOUBLES POINT-OF-SALE APPEAL!

DOW

*Trade Mark Reg. U. S. Pat. Off.

SALES REPORTS from leading cosmetic counters praise ETHOCEL* Sheeting for its important role in doubling the point-of-sale appeal of Woodbury matched make-up boxes.

Fabricated for the Andrew Jergens Co. of Cincinnati by the F. N. Burt Co. of Buffalo, the attractive transparent tray, illustrated above, demonstrates an important use of ETHOCEL Sheeting. Here, it visibly presents three separate cosmetics in a single, easily-handled, compact unit that "brings out the hidden beauty" and makes Woodbury's package outstanding.

Specific features make ETHOCEL Sheeting ideal for many kinds of product packages and displays. Clear, tough, transparent, it does not become brittle with age or discolored from light. ETHOCEL Sheeting does not crack, regardless of climatic conditions.

You'll find ETHOCEL Sheeting gives new *life* and *light* to your product. You'll find, too, that package makers report it is easy and economical to fabricate. Investigate ETHOCEL Sheeting today. Get the Swatch Book (pictured here) and the whole ETHOCEL Sheeting story by writing to the Plastics Sales Division.

THE DOW CHEMICAL COMPANY, MIDLAND, MICH.

New York, St. Louis, Chicago, San Francisco, Los Angeles, Seattle, Houston

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

WE CAN DO IT

AND WILL DO IT

This is an excerpt from an address delivered by Mr. A. W. Robertson, Chairman of the Board, Westinghouse Electric & Manufacturing Company, before the Cincinnati Chamber of Commerce on March 3, 1939, and now emphatically repeated.

I would like to see all of us now rededicate ourselves to our country's cause and say, with Adams, Franklin, Jefferson, and the others who founded it: "We mutually pledge to each other our Lives, our Fortunes, and our sacred Honor"—and from this time henceforth we are not business men, consumers, capitalists, or employees, but Citizens.

We are fully in accord with these sentiments

T. J. DYKEMA, PRESIDENT, PENNSYLVANIA GLASS PRODUCTS CO.
PITTSBURGH, PA.

"Quality First Always"

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

one thing in common

Carr-Lowrey produces many different kinds of glass bottles, but one basic fact links them all. Each is made of the same quality of clear flint glass.

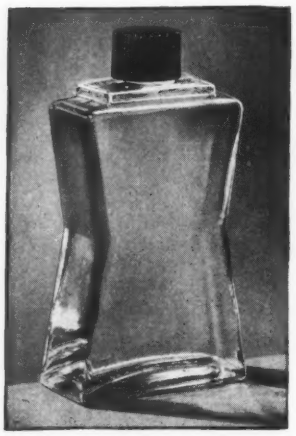
Besides linking all Carr-Lowrey bottles into a uniform grouping this fact means, concretely, that no matter what your product, your package will be manufactured of as fine glass as any in commercial use. This is as true of a cosmetic as of a drug, of a food, or a household specialty. It does not mean that the more expensive containers suffer, but rather that the less costly ones gain by adherence to one rigid standard of high quality.

CARR-LOWREY
3-Point Service

creates

1 PRACTICAL
2 ATTRACTIVE
3 ECONOMICAL

glass packages for foods, drugs, cosmetics, household products.



Stock Mold Bottle No. 408, product of "3-point" design and production service, is now made in these sizes:

¼ oz.	*4 oz.*
½ oz.	*6 oz.*
1 oz.	*6 oz. Wide Mouth.*

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Avenue

Chicago Office: 1502 Merchandise Mart

SUEDE FINISH CONTAINERS: Aziza is currently introducing a treatment line for the eyes in packages which are unusual in that all are uniformly finished in a material which gives the appearance of green suede. Consisting as it does of the original mascara marketed at $1.50 retail, with lotion, cream, emollient and shadow now added to round out a line, practically every type of packaging material is represented—glass, paper, metal and plastic—and each material takes this finish in the same way so that the line has an absolutely uniform appearance. Our scouts haven't yet succeeded in discovering the exact technique with which this is applied i.e. whether first comes adhesive and then the stuff blown or sprayed at it, or whether adhesive and stuff are applied simultaneously, but it makes an unusual and interesting appearance.

For the benefit of those future historians who always want to know when it happened first, we also want to point out that back in 1939 we showed a Q-T-Kal jar with the same type of finish, although in a different color.

MORE PERFUMES: Nothing appears to daunt the introduction of new perfumes to the market. Hardly a month goes by these days without the presentation of several new perfume creations. Charbert's "Breathless" will make its debut in February in perfume, eau de cologne and accessories. Breathless is a bewitching, whimsical scent exquisitely bottled in Charbert's jewel-cut drum flacons. An ounce retails for $12.75, and there are other sizes from $1.75 per dram. Kathleen Mary Quinlan and Primrose House have both chosen this season to introduce "Forget-me-not" perfumes. In both instances, the perfume augments a bath series in the same fragrance. The Kathleen Mary Quinlan Forget-Me-Not perfume is a sparkling fragrance presented in a bottle with three-tiered sides hooped like Grandmother's party gown, with a straight panelled front, and topped with a crystal ball. The Primrose House Forget-Me-Not is a gay perfume packaged in a forget-me-not blue satin box decorated with a cluster of artificial forget-me-nots which also encircle the base of the box holding the bottle.

MORE MASS VITAMINS: The latest entry into the field of mass market vitamins is Grove with Grove's Daily Vitamins, 15 soluble capsules, a 15-day supply for 25 cents. Unlike Hi-V Vitamins, reported in our November issue, the Grove product will be sold through drug stores. In fact Grove uses the threat of the syndicate stores, purveyors of the Hi-V brand, in its promotion to druggists advising them that they "will be smart to promote and encourage this low priced vitamin field, otherwise the variety and 5c and 10c stores will take it away from them."

Grove has 6250 A units, 333 of B_1, and 625 of D, as against Hi-V's 6250 A units, 350 units B_1, 300 units C, and 625 units D.

AMERICAN BEAUTIES: Dorothy Gray is introducing a new spring 1942 make-up shade—"a make-up inspired by the fact that everything that stems from the American scene or breathes an American air of beloved familiarity has greater acceptance than ever. Because the whole world thinks of American women as 'American Beauties,' we have created an ensemble 'Make-up for American Beauties.'" The new make-up is packaged in an American rose, molded of the same material as the Dorothy Gray nutshell. The make-up color itself will be called "Crimson Glory," because it is the shade of the deep red rose from which the color is taken, and after which the rose package is molded. Crimson Glory is a rosy red shade that will blend with all of the rosy-red tones but it will not go purple on the lips—an interesting note, because it has been proven by experience that the prettiest purple lipstick is never a really good seller. Like the nutshell, the rose package can be used after the cosmetics are removed for trinkets, cigarettes, or simply as a decorative beauty spot on the dressing table.

OUR 1942 PLEDGE . . .

The crystal ball that tells of the future is clouded with the smoke of battle. But, piercing the veil of mystery is the clear light of courage, fortitude, and the resourcefulness of our America.

We, here at Kolmar, are carrying on . . . . sympathetic and co-operative with the government, pledging allegiance to the agencies that are guarding our resources . . . . doing our part to help win by perpetuating the traditions of American industry and commerce.

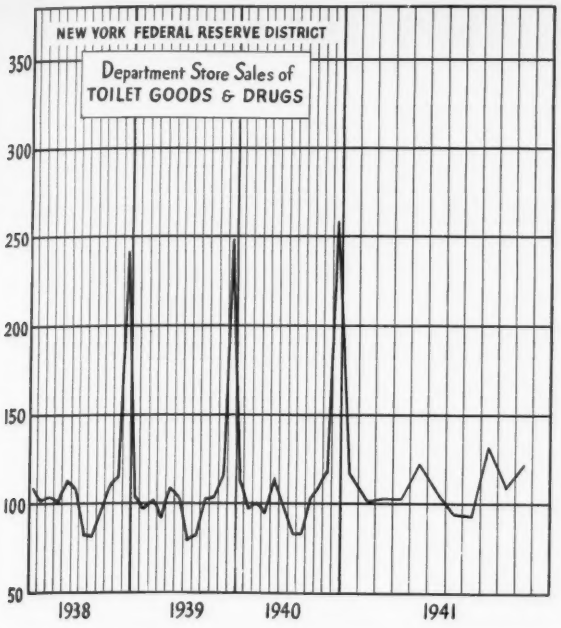
Kolmar is carrying on . . . . with unabated enthusiasm . . . . fostering the traditions of more than twenty years of service to our particular industry.

Manufacturers of private label brands, only.

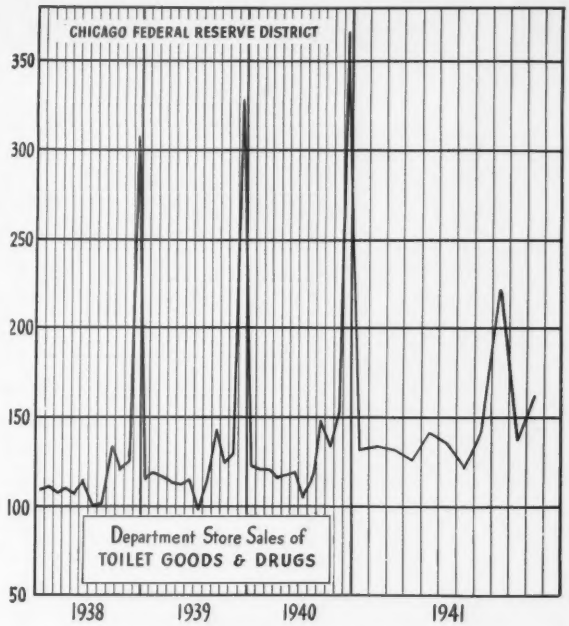
Representatives

Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 1260 N. Western Ave., Los Angeles, Cal.

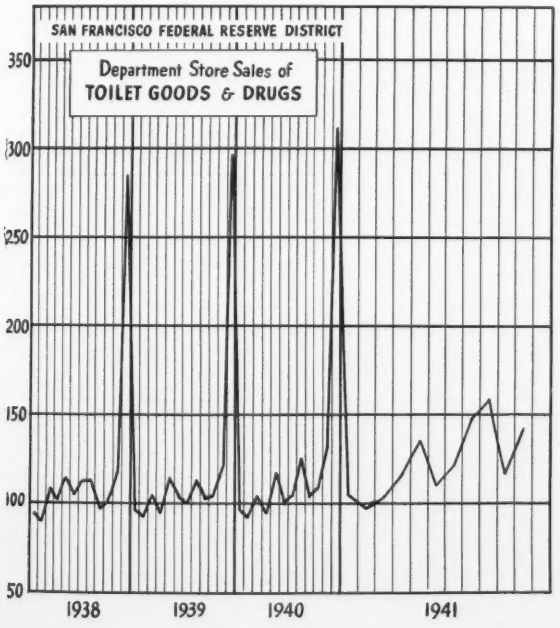
KOLMAR LABORATORIES



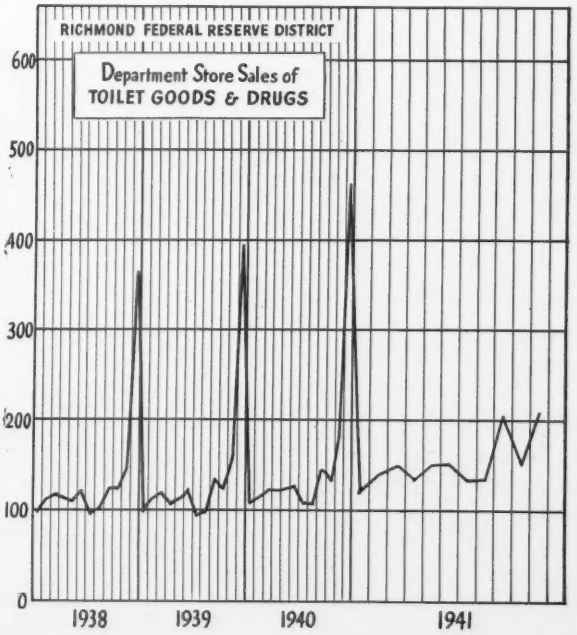
Sales of toilet articles and drugs by department stores in the New York Federal Reserve District were 3 per cent. greater in November 1941 than in the same month of 1940. This corresponds to unadjusted index numbers of 122.6 for November 1941, 109.7 for October 1941, and 119.0 for November 1940.



Sales of toilet articles and drugs by department stores in the Chicago Federal Reserve District were 6 per cent. greater in November 1941 than in November 1940. This corresponds to unadjusted index numbers of 162.0 for November 1941, 137.5 for October 1941, and 152.8 for November 1940.



Sales of toilet articles and drug sundries by department stores in the San Francisco Federal Reserve District were 8 per cent. greater in November 1941 than in the same month of 1940. This corresponds to unadjusted index numbers of 142.9 for November 1941, 117.1 for October 1941, and 132.3 for November 1940.



Sales of toilet articles and preparations by department stores in the Richmond Federal Reserve District were 14 per cent. greater in November 1941 than in the same month of 1940. This corresponds to unadjusted index numbers of 209.5 for November 1941, 150.9 for October 1941, and 183.8 for November 1940.

SMART PACKAGING MADE INEXPENSIVE WITH *Swindell* STOCK *Bottles*

No delays, no "priority troubles," no investments in private moulds—when you choose one of Swindell's smartly designed stock bottles! Here are seven beauties:

J-32: ½ oz. to 16 oz. N-30: ⅛ oz. to 8 oz.
D-62: ½ dr. to 8 oz. A-273: ¼ oz. to 16 oz.
C-39: ½ oz. to 16 oz. A-682: ⅛ oz. to 4 oz.
A-539: ½ oz. to 32 oz.

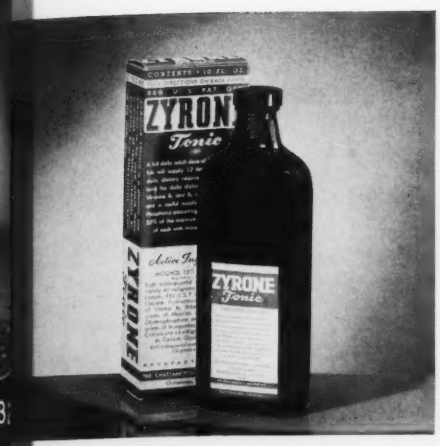
SWINDELL BROS.
BALTIMORE, MARYLAND
200 FIFTH AVENUE, NEW YORK
ROBERTO ORTIZ—HAVANA, CUBA

When you think of bottles think of

Swindell

CHATTANOOGA MEDICINE CO.

A new tonic acting as a dietary supplement where there is a lack of iron, Vitamin B_1, Vitamin B_2 or Nicotinic Acid in the daily diet is being manufactured by the Chattanooga Medicine Co. under the name Zyrone.



CHATTANOOGA MEDICINE CO.

CHATTANOOGA DRUG AND CHEMICAL CO.

A soothing balm-rub which is soft and white has been placed on the market by The Chattanooga Drug and Chemical Co. Known by the name Menthacol, the new product not only serves the useful purpose of helping to "open up the head" in cases of colds, but also can be used as a massage to relax tired and aching muscles and quiet nervous headache. Menthacol is packaged in a handy emerald green glass container.

CHATTANOOGA DRUG AND CHEMICAL CO.

FREDERICK STEARNS & CO.

Frederick Stearns & Co., is introducing Amino Acids, a product that may be administered orally, subcutaneously, intramuscularly and intravenously. Amino Acids are particularly advantageous preoperatively and post-operatively because adequate protein protects the liver from hepatoxic effects of anesthetics and reduces post-operative loss of nitrogen.

FREDERICK STEARNS & CO.

PRIMROSE HOUSE

Primrose House has added perfume to its Forget-Me-Not bath series. The lovely fragrance comes in a beautifully designed bottle which is encased in a forget-me-not blue silk container decorated with a spray of the flowers.

PRIMROSE HOUSE

PARFUMS CHARBERT

Parfums Charbert announces the introduction of an exotic new perfume "Breathless." This fragrance will be presented to the public in February in perfume, eau de cologne and accessories. *Breathless is exquisitely bottled in Charbert's jewel-cut drum flacons.*

PARFUMS CHARBERT

KATHLEEN MARY QUINLAN

With the sparkling fragrance of an ingenue, Quinlan Forget-Me-Not perfume makes its entrance into the Kathleen Mary Quinlan Forget-Me-Not family. The bottle with its three-tiered sides *hooped like Grandmother's party gown,* has a straight panelled front, and is topped by a crystal ball.

KATHLEEN MARY QUINLAN

THERE IS HARDLY a manufacturer, scarcely any type of business, that is not feeling the effects of our national policy of all out for defense.

The pharmaceutical business is no exception—either from the standpoint of the producer of basic chemicals, like Dow—or of the manufacturers of special pharmaceutical products.

The need is for materials of every kind—from lumber and metals, paper and textiles, to every class of chemicals and medicines. All are involved in this stupendous program. Like all other industrial organizations, Dow is bending every effort to fulfill the demands made upon it and is glad to work with you for America and our national defense.

DOW PHARMACEUTICAL PRODUCTS INCLUDE:

Acetanilid, U.S.P.
Acetphenetidin, U.S.P.
Acetyl Salicylic Acid, U.S.P.
Acetyl Salicylic Acid, Granulation with Starch
Ammonium Bromide, U.S.P.
Ammonium Salicylate, U.S.P.
Antipyrene, U.S.P.
Benzoic Acid, U.S.P.
Bromoform, U.S.P., IX
Calcium Bromide, U.S.P.
Camphor, Monobromated, N.F.
Carbon Tetrachloride, C.P.
Chloroform, U.S.P.
Epsom Salt, U.S.P., Recrystallized
Ethyl Chloride, U.S.P.
Ferric Chloride, Crystals, U.S.P., X
Ferric Chloride Solution, U.S.P.
Glycine, Medicinal
Hydrobromic Acid, U.S.P. IX Quality
Iodine
Lithium Bromide, N.F.
Magnesium Salicylate
Magnesium Sulphate, Desiccated
Methyl Salicylate, U.S.P.
Phenol, U.S.P.
Potassium Bromide, U.S.P.
Potassium Iodide, U.S.P.
Salicylic Acid, U.S.P.
Salol, U.S.P.
Sodium Acetate, U.S.P.
Sodium Benzoate, U.S.P.
Sodium Bromide, U.S.P.
Sodium Salicylate, U.S.P.
Strontium Bromide, N.F.
Strontium Salicylate, N.F.
Tetrachlorethylene, Purified
2,4,6-Tribromphenol
Trichloracetic Acid, U.S.P.

Be sure to attend the 17th Annual Drug, Chemical and Allied Trades Banquet on March 12, at the Waldorf Astoria Hotel, New York City.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York City, St. Louis, Chicago, San Francisco, Los Angeles, Seattle, Houston

DOW

NEWS

Associations

D.C.A.T. To Give To Red Cross

The executive committee of the Drug, Chemical and Allied Trades Section of the New York Board of Trade held a special meeting December 18 to draft an over-all program for the association for the duration of the war.

S. B. Penick, Jr., chairman of the section, reported that all profits from the section's 17th annual banquet to be held March 12, 1942 at the Waldorf-Astoria, will be donated in one lump sum to the American Red Cross. Mr. Penick said, "It is our sincere hope that the attendance at this year's dinner will surpass last year's record of 1900 persons. We feel sure the entire drug and chemical industry will support this function thereby assuring the Red Cross of a substantial contribution."

The executive committee decided to make a sizeable purchase of United States Government Defense Bonds and passed resolutions of wholehearted support to the President, Secretaries of Navy and War, Office of Production Management, Office of Price Administration, Office of Civilian Defense, Surgeon General and Governor Lehman.

The following key men have been selected in their respective cities to organize delegations to attend the annual banquet of the Drug, Chemical & Allied Trades Section on March 12: George Armor, McCormick & Co., and Frank E. Black, Baltimore Drug Exchange, Baltimore; F. J. Hailer, United Drug Co., Boston; Hoyt Shehan, Wildroot Co., Buffalo; Ray Whidden, Bauer & Black, and Clarence Morgan, Clarence Morgan, Inc., Chicago; John E. Rudolph, Station W.L.W., Cincinnati; H. A. Nelson, Chemical Supply Co., Cleveland; M. G. deNavarre, Maison G. deNavarre Associates, Detroit; J. C. Ackerman, J. C. Ackerman Co., and James Freeman, H. B. Gilmore Co., Pittsburgh; Ray Anderson, Merck & Co., Inc., and L. S. Lloyd, Alex. Ferguson Co., Philadelphia; and H. L. Dahm, G. S. Robbins & Co., St. Louis.

In making the announcement, Dr. Robert L. Swain, chairman of the publicity committee said: "I feel certain the 17th annual banquet will surpass last year's attendance of 1900 persons because of the national interest shown in the dinner and because the industry is anxious to support the American Red Cross which will receive all profits of the banquet."

Lund Heads Packaging Inst.

Joel Y. Lund, vice-president of Lambert Pharmacal Co., St. Louis, has been elected president of the Packaging Institute, Inc., succeeding George R. Webber, of Standard Brands, who died November 1, 1941.

JOEL Y. LUND

Mr. Lund is in charge of domestic and foreign production of Lambert Pharmacal Co. He has served as director of the Institute since its formation in 1939 and on liaison committees with governmental agencies. He developed through an Institute committee a formula for cartoning collapsible tubes which enabled users of tubes to meet government requirements without interrupting production or replacing equipment.

Foragers Elect

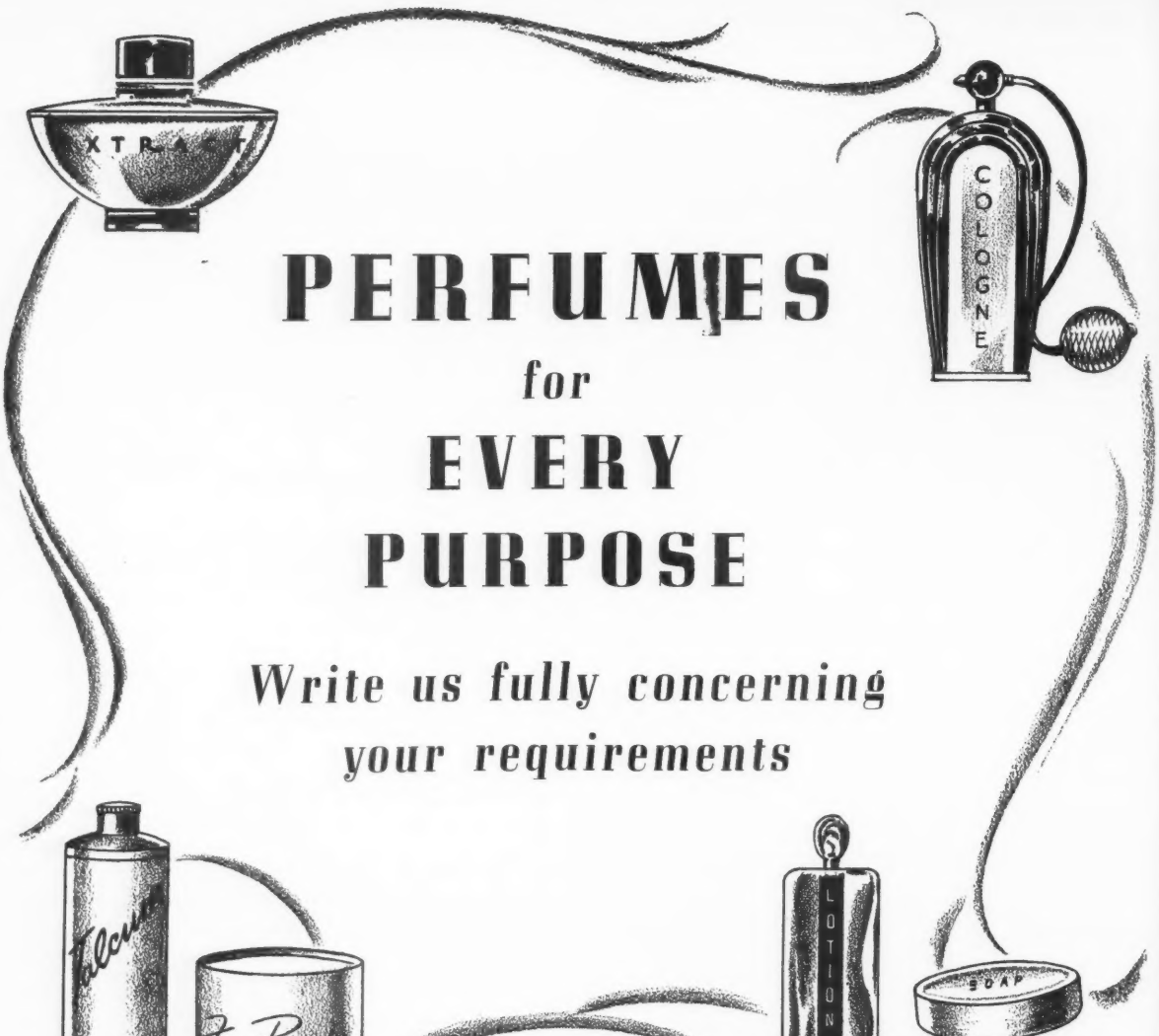
The following members of the Foragers of America were appointed to the board of governors to serve a two-year period, 1942-43, at the annual meeting held December 29: C. R. Keeley, George F. Zinnell, William Spence, Richard R. Powell, Thomas Gladding, V. H. Fredholm. H. T. Georgi remains as president; Walter A. Conklin as vice-president, and A. J. Connolly as secretary-treasurer.

Black Heads Baltimore, Exc.

At the annual meeting of the Baltimore Drug Exchange held December 10, Frank L. Black, Hynson, Westcott & Dunning, Inc., was elected president. Other officers elected were: Lester W. Jones, McCormick & Co., first vice-president; Leo C. Muth, Muth Brothers & Co., second vice-president; William J. Lowry, Lowry Drug Co., secretary; and Leory Oldham, treasurer. Elected to the executive board were: Philip I. Heuisler, Jr., Maryland Glass Corp., J. O. Robinson, Henry B. Gilpin Co., and James F. Whitescarver, U. S. Industrial Chemical Co.

BIMS Annual Dinner

The BIMS of New York will hold its annual winter get-together Thursday, January 22, at the Lafayette Hotel.



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for
EVERY PURPOSE

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PRODUCTS CORPORATION

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831 N. Wabash Ave.

PHILADELPHIA
610 Brown Bldg.

BOSTON
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Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss

Magnus Again Heads Trade Board

For the second time in the history of the New York Board of Trade, Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., has been elected to the presidency. He served first as president in 1933 when national affairs and the New York Board of Trade's membership were at low ebb. Between 1933 and 1938 his leadership re-established the membership and vigorous voice of the Board of Trade in local and national affairs.

P. C. MAGNUS

Mrs. Hansen Heads Calif. Assn.

The following new officers have been elected by the California Cosmetic Association: president, Mrs. S. G. Hansen, House of Hollywood; first vice-president, J. B. Nethercutt, Nethercutt Laboratories; second vice-president, Mauro Herrera, Nourishine Co.; secretary, Sara Cooley, Sara Cooley Cosmetics; and treasurer, J. A. Cox, Cox Laboratory. Members of the board of trustees are: Davis Factor, Max Factor Co.; Henry Miller, Brunswig Drug Co.; Chris Nelson, Nelson Laboratories; and J. H. Olsen, L. B. Hair Oil.

A. P. M. A. Sales Meeting

The annual mid-winter meeting of the American Pharmaceutical Manufacturers' Association which will be held at the Hotel Pennsylvania, February 7, will be devoted to sales and advertising problems. Speakers at the morning session will be S. F. Durst, president of S. F. Durst & Co. who will speak on "Direct Selling"; John W. Clissold, Standard Brands, Inc., who will speak on "The Vitamin Situation in Pharmaceutical Marketing Today"; J. C. Nelson, Jr., the Hart Drug Co., Miami, who will speak on "Direct Mail Advertising in the Ethical Field"; and Thomas H. Jones, author of *Detailing the Physician* who will discuss "Combination Detailing and Selling" and "Methods of Obtaining Druggist Cooperation."

After luncheon a color motion picture illustrating the commercial possibilities of South America will be shown through the courtesy of Pan American Airways. Following that J. D. Bohan, vice-president of the Centaur Co. and chairman of the foreign trade section of the Proprietary Association will speak on "Steps and Principles Involved in Doing Business with South America" and a speaker from the United States Department of Commerce will outline the many services which the Government offers to drug manufacturers who wish to engage in the export trade.

Gerald F. Rorer, William H. Rorer, Inc., was chairman of the program committee.

Missouri Christmas Party

The Associated Drug & Chemical Industries of Missouri held its annual Christmas party on the Starlight Roof of the Hotel Chase in St. Louis, December 17. A check for $250 was presented to the American Red Cross. Morton Meyer, Thompson Hayward Chemical Co., acted for the Associated Chemical Industries of Missouri, and Charles E. Caspari, Jr., Monsanto Chemical Co., accepted the check for the Red Cross.

Merz Again Heads S.O.C.M.A.

The Synthetic Organic Chemical Manufacturers' Association held its annual meeting at the Chemists' Club, New York, December 9 and re-elected August Merz, Calco Chemical Division, American Cyanamid Co., president. Other officers elected were: first vice-president, C. M. Richter, Pharma Chemical Corp.; second vice-president, Victor E. Williams, Monsanto Chemical Co.; treasurer, Ralph E. Dorland, Dow Chemical Co., and secretary, Charles E. Mace.

Newly elected members of the board of governors are: E. H. Killeffer, E. I. Du Pont de Nemours & Co.; Ralph Dorland, Dow Chemical Co., A. L. van Ameringen, van Ameringen-Haebler, Inc., and G. F. Zinsser, Zinsser Chemical Co.

Snider Heads Michigan Assn.

The Allied Drug & Cosmetic Association of Michigan has elected Geoffrey H. Snider president for 1942. Mr. Snider represents Commercial Solvents Corp. in Detroit. He entered the alcohol and chemical field in 1926 with the Rossville Commercial Alcohol Co. In 1933 the

G. H. SNIDER

Franc A. Barada, Fritzsche Bros.; Al Grosch, Aluminum Co. of Amer.; Fred Woods, Owens-Illinois Glass Co.; Marton Johnson, Solvay Sales Co.; Morton Meyer, Thompson Hayward Chemical Co.; Maurice Heimann, Amer. Can Co.; Paul Hein, Mallinckrodt Chemical Wks.; and Kenneth Robbins, G. S. Robbins & Co.

"White Mineral Oil Tastes a Lot Better than it used to."

Today's White Mineral Oil has many obvious advantages which were lacking only a few years ago. It is not only utterly tasteless and odorless, but is infinitely more uniform in its consistency and action. It is satisfying to have taken the lead in bringing about so many of these improvements —including a notable increase in shelf-life and resistance to deterioration.

And right now there is a very important by-product of the forehanded research and development which have made L. Sonneborn Sons, Inc. the standard source for so many Pharmaceutical and Cosmetic manufacturers. Our Technical Service Staff is exceptionally well equipped to give *practical* assistance in making the most of your available materials—and, perhaps, in improving your products as well.

WHERE QUALITY COUNTS—COUNT ON SONNEBORN

WHITE MINERAL OILS

KAYDOL U. S. P. Heavy
ORZOL U. S. P. Heavy
PURITAN U. S. P. Heavy
ERVOL U. S. P. Light
BLANDOL U. S. P. Light
CARNATION
KLEAROL

PETROLATUMS U. S. P.

TYPE I: *Medium Consistency—White Protopet—Yellow Protopet and other colors*

TYPE II: *Soft Consistency—White Fonoline—Yellow Fonoline*

TYPE III: *Medium Consistency With High Melting Point White Perfecta*

SPECIALTIES

PROTOWAX—Amorphous (micro-crystalline) wax for pharmaceutical and cosmetic formulation.

SONO-JELL—Complete series for liquefying cleansing creams, pomades, ointments, etc.

DEO-BASE—Light hydrocarbon distillate refined to complete freedom from kerosene odor.

TRI-OL—Base for soapless oil shampoos. SONO-FOAM—Base for soap shampoos.

L. SONNEBORN SONS, INC.

Refiners of White Mineral Oil and Petrolatum. Refineries: Petrolia and Franklin, Pa.

NEW YORK · CHICAGO · BALTIMORE · PHILADELPHIA · LOS ANGELES · Stocks Carried in Principal Cities

Southwestern Distributors: Sonneborn Bros., Dallas, Texas

company was purchased by Commercial Solvents Corp. of which it is now a unit.

Other officers elected were: William Russell, Monsanto Chemical Co., vice-president; Stewart Cowell, J. T. Baker Chemical Co., treasurer, Maison G. deNavarre, secretary. New members of the executive committee are A. R. Vicary and William Boyd, both of Mark W. Allen Co., H. Royce and A. S. Bedell, the retiring president.

Companies

Dr. Taylor Joins Ortho

Dr. Edward Tyler, formerly with Hoffmann-LaRoche, has joined Ortho Products, Inc., Linden, N. J., as director of the new products division.

Schimmel Appoints Miss Perl

Miss N. Perl has been made purchasing agent of Schimmel & Co., Inc., New York. In this position she succeeds Mildred Roe who was married December 27.

Nejelski Joins American Home

Leo Nejelski, until recently assistant general manager of the Pepsodent Co., has joined American Home Products Corp., Jersey City, N. J., in a special capacity.

Dow Buys Salt Wells

Holdings of the Morton Salt Co. in Ludington and Pere Marquette townships, Mich., have been purchased by Dow Chemical Co., Midland, Mich. A pipeline from Ludington to Midland was recently completed by Dow and will be used to ship brine to the Midland plant for use in making magnesium.

Delettrez Moves

Delettrez has moved its showroom and offices to the fourth floor of the British Empire Bldg., 620 Fifth Avenue, New York.

Harry T. Johnson, vice-president and general manager, is recovering steadily from a serious abdominal operation which has kept him in the New York Hospital for some time. He expects to be back at his desk early in January.

New Elmo Building

On December 1 Elmo Sales Corporation's San Francisco branch offices were moved to a new building especially constructed for it at 1339 Mission St. consisting of warehouse, office, showroom and a special room for meetings held by the salesgirls in the California area. S. G. Gausman, C. R. Collins, E. Grant Cochrane all work from this office as senior salesmen and John Cameron and Merwin Thiebaut as junior salesmen. Margaret E. Osborne is in charge of the office.

Dyne Named Vice-President

Godfrey W. Dyne has been appointed vice-president of American-British Supplies, Inc., New York. Mr. Dyne, who was born in London, was graduated from London University in 1911 with honors in chemistry. In 1912 he joined T. M. Duche & Sons, manufacturer of gelatine and glue, and was with its New York branch from 1913 to 1928. During this period he specialized in developing and expanding its business in casein, particularly its imports from Argentine and France.

Mr. Dyne joined American-British Chemical Supplies in 1928 to establish a casein business for it. Since the formation of its associated company, Kay Fries Chemicals, Inc., in 1931, he has devoted special attention to the market development and distribution of aromatic, solvent, pharmaceutical and other intermediate chemicals manufactured by this company.

New National Can Plant

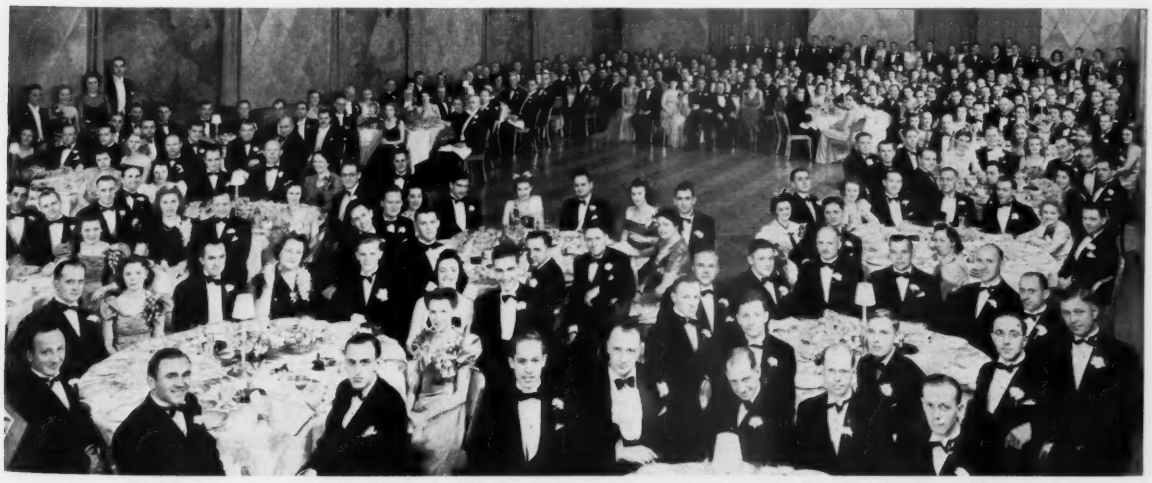
National Can's new manufacturing plant in Chicago is nearing completion and will be in service at the start of the 1942 season. Located at West 51st St. and South Austin Ave., it is accessible to the main highways and railroads of the nation's greatest food-growing region.

Fritzsche Dinner Dance

Two hundred ninety-five employees attended the twenty-fifth annual dinner dance which Fritzsche Brothers, Inc. held at the Hotel New Yorker, December 13. The guests were welcomed by F. H. Leonhardt, president, and W. A. R. Welcke, vice-president and treasurer.

Earlier in the day the sales staff and a number of the New York personnel were taken to Clifton, N. J., to inspect the new and enlarged manufacturing facilities of Fritzsche Brothers, Inc., provided there since the visit a year ago.

On Friday, December 12, a short business meeting was addressed by Mr. Leonhardt, George L. Ringle, John H. Montgomery and H. P. Wesemann. This year marks the seventieth anniversary of the founding of the company in 1871.



FRITZSCHE BROTHERS' ANNUAL DINNER-DANCE AT THE HOTEL NEW YORKER, NEW YORK

Defense Savings Pay-Roll Allotment Plan

How company heads can help their country, their employees, and themselves

voluntary pay-roll allotment plan

helps workers provide for the future

helps build future buying power

helps defend America today

This is no charity plea. It is a sound business proposition that vitally concerns the present and future welfare of your company, your employees, and yourself.

During the post-war period of readjustment, you may be faced with the unpleasant necessity of turning employees out into a confused and cheerless world. But you, as an employer, can do something *now* to help shape the destinies of your people. Scores of business heads have adopted the Voluntary Pay-roll Allotment Plan as a simple and easy way for every worker in the land to start a *systematic* and *continuous* Defense Bond savings program.

Many benefits . . . present and future. **It is more than a sensible step toward reducing the ranks of the post-war needy. It will help spread financial participation in National Defense among all of America's wage earners.**

The widespread use of this plan will materially retard inflation. It will "store" part of our pyramiding national income that would otherwise be spent as fast as it's earned, increasing the demand for our diminishing supply of consumer goods.

And don't overlook the immediate benefit . . . money for defense materials, quickly, continuously, *willingly*.

Let's do it the American way! **America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his *own* house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done *of its own free will*.**

In emergencies, America doesn't do things "hit-or-miss." **We would get there *eventually* if we just left it to everybody's whim to buy Defense Bonds when they thought of it. But we're a nation of businessmen who understand that the way to get a thing done is to *systematize* the operation. That is why so many employers are getting back of this Voluntary Savings Plan.**

Like most efficient systems, it is amazingly simple. All you have to do is offer your employees the convenience of having a fixed sum allotted, from each pay envelope, to the purchase of Defense Bonds. The employer holds these funds in a separate bank account, and delivers a Bond to the employee each time his allotments accumulate to a sufficient amount.

Each employee who chooses to start this savings plan decides for himself the denomination of the Bonds to be purchased and the amount to be allotted from his wages each pay day.

How big does a company have to be? **From three employees on up. Size has nothing to do with it. It works equally well in stores, schools, publishing houses, factories, or banks. This whole idea of pay-roll allotment has been evolved by businessmen in cooperation with the Treasury Department. Each organization adopts its own simple, efficient application of the idea in accordance with the needs of its own set-up**

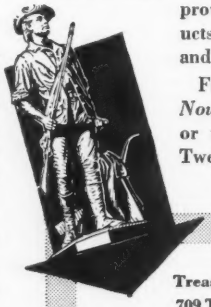
No chore at all. **The system is so simple that A. T. & T. uses exactly the same easy card system that is being used by hundreds of companies having fewer than 25 employees! It is simple enough to be handled by a check-mark on a card each pay day.**

Plenty of help available. **Although this is *your* plan when you put it into effect, the Treasury Department is ready and willing to give you all kinds of help. Local civilian committees in 48 States are set up to have experienced men work with you just as much as you want them to, and no more.**

Truly, about all *you* have to do is to indicate your willingness to get your organization started. We will supply most of the necessary material, and no end of help.

The first step is to take a closer look. **Sending in the coupon in no way obligates you to install the Plan. It will simply give you a chance to scrutinize the available material and see what other companies are already doing. It will bring you samples of literature explaining the benefits to employees and describing the various denominations of Defense Savings Bonds that can be purchased through the Plan.**

Sending the coupon does nothing more than signify that you are anxious to do *something* to help keep your people off relief when defense production sloughs off; *something* to enable *all* wage earners to participate in financing Defense; *something* to provide tomorrow's buying power for your products; *something* to get money *right now* for guns and tanks and planes and ships.



France left it to "hit-or-miss" . . . and *missed*. *Now* is the time for *you* to act! Mail the coupon or write Treasury Department, Section A, 709 Twelfth St. NW., Washington, D. C.

FREE - NO OBLIGATION

Treasury Department, Section A,
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

Name _____

Position _____

Company _____

Address _____

GPO 428498

U.S.I. ALCOHOL NEWS

January ★ A Monthly Review of Technical Developments for Chemists and Executives ★ 1942

LOTIONS RELIEVE INSECT BITES

Alkaline lotions are said to have shown good results in relieving discomfort from insect bites or stings. Alcohol contributes soothing effects and antiseptic properties to the lotions.

Alcohol and an Alkali are Chief Ingredients in Many Formulations

Simple lotions, formulated with the aid of an alkali and a soothing agent such as alcohol, have shown a considerable degree of effectiveness in the treatment of many types of insect bites or stings. Such lotions, of course, are not intended for the treatment of bites that may transmit disease or that are very virulent, but they appear to have definite merits where the effects of the bite or sting are merely irritating or annoying.

Alkali Counteracts Acid

Use of an alkaline lotion depends on the theory that in the case of most bites and stings (except wasp stings) the irritating effects are caused by an acid, which is neutralized by the alkali in the lotion. The alcohol acts as an anti-inflammatory agent, and also contributes antiseptic properties.

Mr. C. E. Adams, Chairman of the Board of U.S.I., has been named Chief of the Iron and Steel Division in the Office of Production Management, and assumed his new duties on December 11.

FINDS "DRY-ICE" MAY BE HELPFUL IN FEVER THERAPY

Experiments performed on animals indicate the possibility that "DRY-ICE"* may eventually prove helpful in fever therapy.

Fever therapy (the artificial inducement of fevers) is reported to have shown gratifying results in the treatment of various types of diseases. Its use, however, requires caution, because of the possibility of shock when the heated blood reaches the brain.

In experiments on dogs, it was found that when the carotid vein is packed in "DRY-ICE," the blood can be cooled to normal temperature before reaching the vein. If further studies indicate that the "DRY-ICE" technique can be applied to human beings, a broader scope of usefulness for fever therapy may result.

*Pure Carbonic, Incorporated, sells "DRY-ICE" manufactured by U.S.I.

TECHNICAL DEVELOPMENTS

For further information, write U.S.I.

A substitute for civet absolute can be used in the same proportions as natural civet, according to the maker. Four ounces per gallon will produce a solution equivalent to a 3% tincture of civet. **(No. 530a)**

An oriental type odor can be successfully employed in such preparations as soaps, liquid soaps, and shaving creams, it is reported. It is not intended for use in powders and creams. Maker says product is soap-fast and will not discolor. **(No. 531a)**

Oil of tarragon (estragon) can be replaced by a new synthetic chemical, it is said. Product is described as especially useful in fougere, chypre, and other perfumes of this type. **(No. 532a)**

A new adhesive can be employed on leather, wood, paper, fiberboard, and plastics, and can be used to bond similar or dissimilar materials together, according to the maker. Material is described as a transparent, practically colorless liquid. **(No. 533a)**

ALCOHOL ADVANTAGEOUS IN MAKING BLEMISH COVERINGS

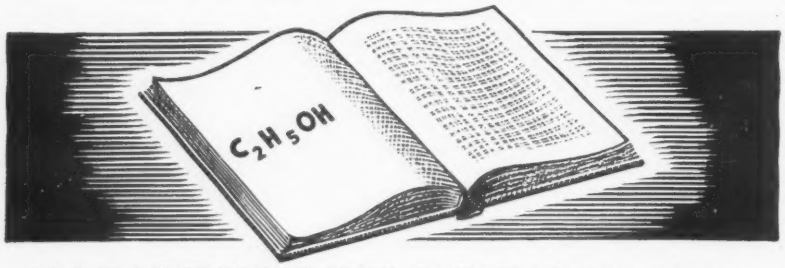
Alcohol can be used to advantage in the formulation of the blemish coverings which can be expected to command a fairly steady market. Many of these coverings are of the cream type, made by adding substantial amounts of titanium dioxide to a cream base. In preparations of this type, alcohol may be used as a solvent for the perfume. Coverings of this kind can be applied by hand.

Other blemish coverings are of the lacquer type, consisting of a suspension of titanium dioxide in a solution of an alcohol-soluble gum or resin. These coverings are usually applied with a brush.

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK — CHEMICALS, INDUSTRIAL, ANTI-, SOLVENTS, ALCOHOLS, FREEZE, USI SERVICE TO INDUSTRY — BRANCHES IN ALL PRINCIPAL CITIES

THE ALCOHOL PRIMER



NO. 9 OF A SERIES ON THE SELECTION AND USE OF INDUSTRIAL ALCOHOL

S.D. Alcohols 37 and 37A

Because of the character of the authorized denaturants, S.D. Alcohols 37 and 37A offer interesting possibilities in the formulation of face and hand lotions and mouth washes, which are among the authorized applications for both of these formulas.

Authorized Composition

The authorized composition of S.D. Alcohol 37 calls for the addition of the following to each 100 gallons of ethyl alcohol:

45 ounces eucalyptol, U.S.P.
30 ounces thymol, U.S.P.
20 ounces menthol, U.S.P.

S.D. 37A is prepared by adding the following to 100 gallons of ethyl alcohol:

5 pounds menthol, U.S.P.
10 pounds camphor, U.S.P.

It will be noted that all of these denaturants are frequently used ingredients in many of the applications listed below under authorized uses; hence their presence in the denatured alcohol may be used to advantage in the formulation of such products, to confer desirable properties.

Applications of 37 and 37A

The list of authorized applications for S.D. 37 is a fairly expansive one. It may be used as a solvent in the manufacture of:

Hair and scalp preparations
Bay rum
Face and hand lotions
Body deodorants and deodorant creams
Tooth paste and tooth powder
Mouth washes
External pharmaceuticals not U.S.P. or N.F.
Antiseptic solutions, N.F.
Disinfectants, insecticides, etc.
Sterilizing and preserving solutions
Cleaning preparations and purposes
Theater sprays and incense

Authorized uses of S.D. 37A are limited to its use as a solvent in manufacturing:

Face and hand lotions
Mouth washes
External pharmaceuticals not U.S.P. or N.F.

Uses of S.D. 40

Another formula with many authorized uses in the cosmetic field is S.D. 40. This formula is prepared by adding to each 100 gallons of ethyl alcohol 3 ounces of the alkaloid brucine or brucine sulfate, and 1/8 gallon of denaturing grade tertiary butyl alcohol.

S.D. Alcohol 40 is authorized for use as a solvent in manufacturing:

Hair and scalp preparations
Bay rum
Face and hand lotions
Body deodorants and deodorant creams
Perfumes and perfume tinctures
Toilet waters
Shampoos
Toilet soaps and bath salts
External pharmaceuticals not U.S.P. or N.F.
Theater sprays and incense

(Throughout this article, the term *authorized uses* refers to the purposes for which specially denatured formulas may normally be used under the regulations of the Alcohol Tax Unit. Mandatory priorities now in effect, however, may limit the availability of alcohol for certain of its authorized uses.)

HERE AND THERE

Possibility that liquid menthol may be satisfactorily substituted for pure crystalline menthol in many cosmetic preparations has been suggested as a means of easing the shortage of menthol of U.S.P. quality. The liquid product is described as consisting of about 65% U.S.P. menthol, with the remainder lower-melting menthol isomers. Advantage of the liquid menthol, from the standpoint of availability, is that it is reputedly much easier to manufacture than the U.S.P. grade. The liquid product, it is claimed, adequately meets the requirements of such preparations as shaving lotions, shaving creams, tooth paste, powder, and other cosmetics, in which it may not be absolutely necessary to use the U.S.P. grade.

Zinc Oxide Substitutes

With the first signs some time ago of a shortage in zinc oxide, it was natural that cosmetic manufacturers would immediately begin considering the possibilities of titanium dioxide as a substitute. Now that the distribution of titanium dioxide as a pigment has been placed under a monthly allocation system, there may be difficulty in obtaining adequate supplies of titanium dioxide as well as of zinc oxide. However, some other substitutes still seem to be available. One manufacturer is reported to be offering a trade-marked product that appears to be a satisfactory replacement for zinc oxide.

Pine Oil from Gum

A process for the production of pine oil from gum turpentine has recently been announced. The new process is said to produce an oil with substantially the same physical and chemical properties as natural pine oil. It is described chemically as a well-defined mixture of terpenes and secondary and tertiary alcohols. Product has a mild aromatic pine odor. It is expected that the price, for the present at least, will be higher than that of natural pine, because of current high price levels on gum turpentine, but the process is expected to supplement supplies of the natural oil. Tests indicate that the new product can be used in most of the important applications in which natural pine oil is now used.

N.F. VII Lists New Products

96 drugs and preparations have been added to N.F. VII, and other changes and deletions have been made. N.F. VII was published during the latter part of December.

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK — CHEMICALS, INDUSTRIAL, ANTI-, SOLVENTS, ALCOHOLS, FREEZE, USI SERVICE TO INDUSTRY — BRANCHES IN ALL PRINCIPAL CITIES

ALCOHOLS
Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined

Ethanol (Ethyl Alcohol)
Specially Denatured—All regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%, Absolute
U.S.I. Denatured Alcohol Anti-freeze
*Super Pyro Anti-freeze
*Solox Proprietary Solvent
*Solox D-1 De-icing Fluid

***ANSOLS**
Ansol M
Ansol PR

ACETIC ESTERS
Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS
Butyl Oxalate
Ethyl Oxalate

PHTHALIC ESTERS
Amyl Phthalate
Butyl Phthalate
Ethyl Phthalate

OTHER ESTERS
*Diatol
Ethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone
Collodians
*Curbay B-G
*Curbay Binders
*Curbay X (Powder)
Ethylene
Ethylene Glycol
Nitrocellulose Solutions
Potash, Agricultural
Urethan
*Vacatone

*Registered Trade Mark

Vick Buys J. T. Baker

J. T. Baker Chemical Co., Phillipsburg, N. J., announces that controlling interest in the company has been purchased by the Vick Chemical Co. The personnel and policies of the J. T. Baker Chemical Co. will continue without change, the officers being H. H. Garis, president; W. P. Fitzgerald, vice-president; R. H. Willever, treasurer and secretary. Ralph A. Clark, a member of the board of directors, is general sales manager.

In a letter to the stockholders H. H. Garis, president, said, "On December 17, 1941, the undersigned who has been president and general manager of J. T. Baker Chemical Company during the last fifteen years, sold to the Vick Chemical Company all the shares of common stock of Baker owned by him and by various members of his family. Each of the other officers and directors of Baker as well as certain other large stockholders, also sold to Vick, at the same time and at the same price, all the common shares owned or controlled by them.

Further conditions of the sale made by Mr. Garis in good faith with the minority stockholders were that the Vick Chemical Co. offer to all other Baker stockholders an equivalent price for their common stock. This price was $22.25 per share, plus the year-end dividend of 25c per share. The Baker interests received $22.50 per share for their stock, but did not receive the year-end dividend of 25c per share.

J. T. Baker Chemical Co.'s plant is at Phillipsburg, N. J. It consists of 160,000 square feet of floor space located on a 12-acre tract. The company have been manufacturing specialists of laboratory reagent chemicals for 38 years. They also manufacture fine chemicals for pharmaceutical and medicinal houses, and special industrial chemicals that may be required to exacting purity standards. In addition to their executive offices at Phillipsburg, N. J., they maintain branch offices at New York, Philadelphia and Chicago.

Ayerst, McKenna & Harrison

Ayerst, McKenna & Harrison (U. S.) Ltd., biological and pharmaceutical manufacturer, Rouses Point, N. Y., has appointed William Harrison, formerly secretary, to the post of vice-president and managing director. W. H. Wallace will act as secretary and assistant managing director in charge of sales. W. J. McKenna assumes the chairmanship of the board. Hugh McPherson and W. A. S. Ayerst continue as president and treasurer respectively.

Joseph Hutchinson, formerly vice-president, has terminated his association with the firm.

Walgreen Changes

At the annual meeting of the stockholders of the Walgreen Co., William G. Johnston was made a member of the board of directors. James E. Ward, director of purchases, was made vice-president and Robert G. Knight, comptroller, was also made treasurer. Charles R. Walgreen, Jr., is president of the company.

McCormick & Co. Elects

James Walsh has been elected secretary of McCormick & Co., Baltimore, and Brooks E. Farr has been elected treasurer. The late William Lee Bean, formerly held both of these offices.

Frost Advanced By Innis Speiden

Pinckney L. (Jack) Frost has been appointed manager of sales for Innis Speiden & Co., New York, filling a vacancy caused by the death of H. Gordon Mackelcan.

Mr. Frost has been associated with Innis, Speiden & Co. since 1921 when he was employed as an office boy. Subsequently assigned to the sales staff, he later assumed managership of the company's Cleveland branch, holding that post from 1928 to 1939. In 1933 he was made assistant manager of sales with headquarters in New York.

PINCKNEY L. FROST

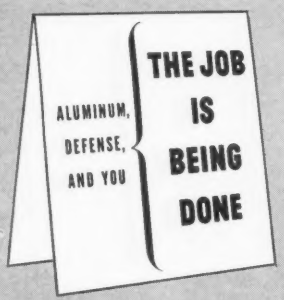
Mr. Frost was born in Buffalo, in 1904 and attended Milton Academy, Milton, Mass., and Roxbury Latin School, Roxbury, Mass. He later studied chemistry at Pratt Institute.

Helfrich Expands in N. Y.

The New York factory of Helfrich Laboratories, Inc. has been moved to much larger quarters at 151-163 West 26 St.

ALLIED DRUG AND COSMETIC ASSOCIATION CHRISTMAS PARTY HELD AT THE BOOK-CADILLAC HOTEL, DETROIT, DECEMBER 12, 1941

ALUMINUM, THE FUTURE, AND YOU



RIGHT NOW OUR FACTORIES have only one interest: to make more Defense Aluminum than the world has ever seen before. Every resource we can muster is concentrated on that job.

WHEN AMERICA HAS WON THROUGH to make the world safe for our children to live in . . . the saying is: What a lot of aluminum is going to be available for everybody.

THE REAL POINT TO PONDER is how to get set to make that deluge of light metal work for you. In the kind of world we're going to have, sure as fate, the man who fails to call, *now,* on every resource at his command is going to be left at the post.

WE'VE COINED A WORD:

IMAGINEERING. It's the fine art of deciding where you go from here. It's the act of thinking out what you are going to face, and doing something about it now. *Imagination* plus *engineering* is a formula for the future you're going to hear more about.

A MAN CAN be producing for Defense at top speed and be imagineering at one and the same time. In fact, the more he is devoted to Defense now, the more he needs imagineering for ***THE DAY WHEN.***

OBVIOUSLY, you can imagineer with steel, copper, glass, zinc, plastics, or what have you. We hope you will, because the world is going to need better use of all materials than it ever saw before.

THE CLOSER YOU GET TO FUNDAMENTALS the more quickly you must decide that the great need is going to be for the very things Alcoa Aluminum does best: Lightness with strength, resistance to corrosion, reflectivity, workability and all the rest of its powers all wrapped up in a low-cost package full of unlimited possibilities for you, personally, in your business.

TWO HEADS ARE BETTER THAN ONE. Already, many an industry, many a company, has called us into an imagineering session. We've seen things projected that will make news when the curtain can be lifted. Usually we've been able to help with some imagineering of our own.

DOES THIS SUGGEST ACTION? WE HOPE SO.

Aluminum Company of America, Pittsburgh, Penn.

ALCOA ALUMINUM

Drug Makers Fined

The Justice Department has announced the imposition of fines totaling $54,000 on four corporations and five individuals charged with conspiring with German and other European interests to restrict importation and manufacture of valuable medicinal hormones in the United States and South America.

The hormones manufactured synthetically were described as valuable in counteracting shock caused by wounds, burns and surgery and also in aiding the recovery of airplane pilots from dive "blackouts."

The fines were assessed as follows: Schering Corp., Bloomfield, N. J., $15,000; Julius Weltzein, president of the company, $2,000; Gregory Stragnell, vice-president, $1,000; Ciba Pharmaceutical Products Inc., Summit, N. J., $10,000; Vincent A. Burgher, principal officer of Ciba, $2,000; Roche-Organon, Inc., New Jersey, $15,000; Elmer H. Bobst, president of Roche-Organon, $3,000; Rare Chemicals, Inc., Flemington, N. J., $5,000; and E. T. Fritzching, president of Rare Chemicals, $1,000.

The Federal court action was the result of a nation-wide investigation into cartel practices conducted by the anti-trust division of the Justice Department. It was alleged that European interests entered into a cartel agreement in May 1937 to curtail imports.

Alice Coutler Joins A.D.S.

Alice Coulter has been appointed sales promotion manager of American Druggists' Syndicate, Inc. She was previously an assistant to the advertising manager of Norwich Pharmacal Co.

Obermeyer Joins Merck

H. G. Obermeyer has joined the research development division of Merck & Co., Rahway, N. J.

Crull Honored

I. Willard Crull, vice-president and advertising manager of the Campana Sales Co., Batavia, Ill., has been elected president of the Geneva Golf Club, Geneva, Ill.

Lederle Moves in Los Angeles

The Los Angeles branch of Lederle Laboratories has been moved to the Knickerbocker Building, 643 South Olive St., that city.

M.M.&R. Sales Meeting

Magnus, Mabee & Reynard, Inc., held its annual sales convention and technical clinic in New York, January 2, 3 and 4. The company's salesmen from all points in the United States were in attendance as well as several MM&R representatives from Cuba, Canada and other hemisphere points. The sales sessions were held at the Hotel Warwick and the technical clinics at the company's research laboratories at 16 Desbrosses St.

A. H. Downey, technical director, was chairman of the sales convention committee and directed the extensive technical clinics for the salesmen. Changes in formulae, coping with shortages, new products and research results were discussed. Mr. Downey was assisted by W. F. Fischer, sales manager, George H. McGlynn, treasurer, Rowland C. Ringgold, assistant to the president, Stanley Barker, regional sales manager and Sidney Matthew Weiss, advertising counsel and executive vice-president of A. W. Lewin Co., Inc.

The meeting closed with a banquet for the 56 MM&R salesmen, representatives and executives.

Sales Meetings

Sales meetings were held for Parfums Corday and Kathleen Mary Quinlan during the week of December 15. Business sessions were combined with entertainment and fun in the evening and the meetings were climaxed with a dinner arranged by Benson Storfer on December 17 at Bill's Gay Nineties. Members of both organizations met to learn of interesting, new plans for 1942.

The following are representatives of both Parfums Corday, Inc., and Kathleen Mary Quinlan, Inc.: Lincoln E. Morton, with headquarters in New York; J. David London, New England States; J. Henry Healy, Sr. and J. Henry Healy, Jr., in Philadelphia; Bernard Anderson, in Chicago; George E. Meier, in Detroit; Rudolph Storfer, in Miami; Benjamin H. Freeman, Dallas; Nathan W. Wilson, San Francisco.

Luft Sales Meeting

The eastern, southern and far western sales forces of the George W. Luft Co. met in convention December 15 through 17 at the Hotel Lincoln, New York. In order to meet with the midwestern sales staff, the session was transferred to the Palmer House, Chicago, December 19 and 20.

Dr. Stein of Denver Resigns

Dr. Frank Stein, medical director and general manager of Denver Chemical Co., has resigned after thirty-five years of service with the company. Dr. Stein inaugurated the magazine the "Bloodless Phlebotomist" which was printed in fifteen languages and which is said to have reached a circulation of 1,600,000 copies.

People

Dirr 30 Years With Huisking

Peter A. Dirr, vice-president of Chas. L. Huisking & Co., celebrates forty years in the drug and chemical trade January 13. The first of January marked the completion of thirty years with the Huisking organization.

Mr. Dirr worked from 1902 to 1911 for Thomas M. Curtius. The following year he was a traveling representative for McKesson & Robbins, leaving to become associated with Charles L. Huisking and his brother, the late George Huisking, in the newly organized Chas. L. Huisking & Co.

Neumann 35 Yrs. With N. J. Zinc

R. M. Neumann, general sales manager of New Jersey Zinc Co., celebrated the thirty-fifth anniversary of his association with the company on December 18. Mr. Neumann joined New Jersey Zinc in 1906. In 1935 he was made manager of the pigment division and in 1939 was made general manager.

Garvin-Merck 25 Yr. Member

The Rahway and New York Chapters of the Merck Quarter Century Club held their annual dinner at the Elks Club in Elizabeth, N. J., December 9. Following the dinner, George W. Merck, president of the company, spoke on the responsibilities of the company and its employees during the present trying times. He then welcomed John A. Garvin, assistant secretary of the company, into the club.

During the year 1941 the following members became members of the club which now numbers 149: A. P. Church, John J. Clark, John A. Garvin, M. Giannecchini, Philip Gottfried, Dr. R. E. Gruber, J. Jaske, Wm. F. Merkle, S. Mescan, S. Namia, Louis Scheidel, F. Schuetz, Joseph L. Shannon, D. Torzone, J. Trudel, J. W. Wieser, and F. Witheridge.

Tombarel

WE HAVE MOVED

With the turn of the year, TOMBAREL, New York, moves to a more spacious home, where larger facilities for research and perfume development enable us to better serve our increasing number of customers and friends. Visit us at

12 EAST 22nd STREET,
NEW YORK, N. Y.

This year may well test to the utmost the ingenuity and experience of the perfumer. While public demand for fine odors in perfume, colognes, and cosmetics will continue, the perfumer must find new materials and new combinations to replace those no longer available. Imagination, experience and skill are needed in the perfume art as never before.

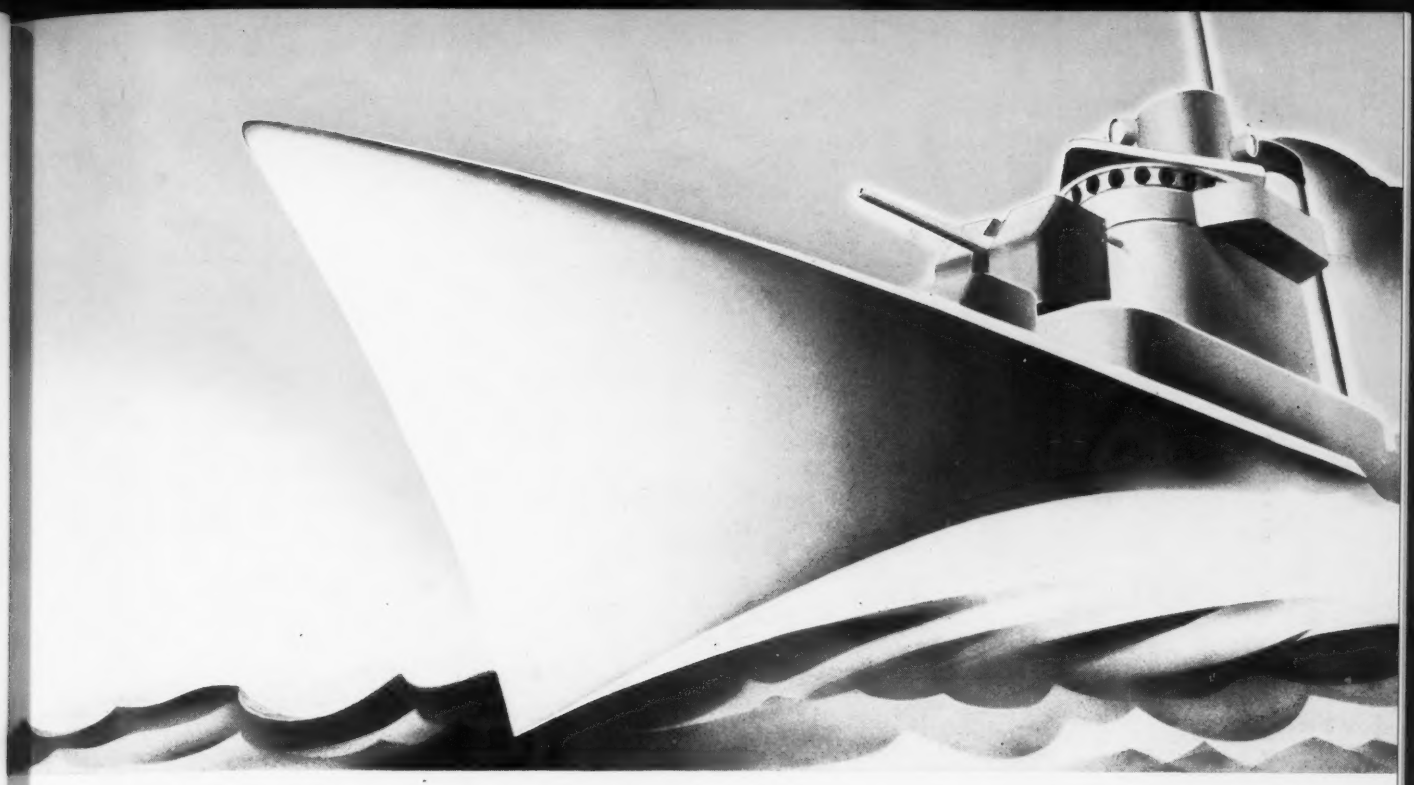
TOMBAREL, New York, is fortunate in the collaboration and use of resources it has received from Tombarel Freres, Grasse, France, whose record of achievement in the production of fine floral oils and perfume specialties for over 100 years gives us a great reservoir of perfume knowledge to draw from.

Placing these new facilities at your disposal, we cordially invite inquiries.

TOMBAREL PRODUCTS CORPORATION

L. J. Zollinger, President

12 East 22nd Street New York, N. Y.



FULL SPEED AHEAD . . . *with all stations manned!*

Cutting through ocean swells, a guardian of the seas sweeps full speed ahead to protect America's interests . . .

So, too, at the J. T. Baker Chemical Co., "all stations are manned" and production of fine chemicals moves full speed ahead to aid America in its National Emergency and to help protect America's health.

Baker moves not only with speed, but with accustomed *accuracy.* Purity by the ton in Fine Chemicals, established through Baker men and methods, is still being rigidly maintained. These high Baker standards aid National Defense. And these Baker standards also help pharmaceutical manufacturers maintain quality, and protect their precious trademarks.

Baker, in its two-fold job, is endeavoring to meet both normal and extraordinary demands; to serve both our own loyal customers and Uncle Sam.

Under today's national emergency, old customers may not always be able to get what they want when they want it. Uncle Sam gets the right of way, and rightfully so. But we are doing our utmost with all stations manned. We are going full speed ahead.

The name **Baker** *is known wherever Fine Chemicals are used*

A partial list of Tonnage Fine Chemicals held under rigid control, at no price premium.

- Alkali Bromides
- Potassium Iodide
- Magnesium Oxide
- Magnesium Carbonate
- Cream of Tartar
- Bismuth Subcarbonate—Subnitrate and other Salts
- Caustic Potash and Soda Sticks and Pellets
- Rochelle Salt
- Lead Acetate
- Salicylates

Baker's

J. T. BAKER CHEMICAL CO., Phillipsburg, N.J.

NEW YORK: 420 Lexington Avenue · PHILADELPHIA: 220 South 16th Street · CHICAGO: 435 No. Michigan Avenue

Baker's fine chemicals

Sturge Standard

PRECIPITATED

Chalk

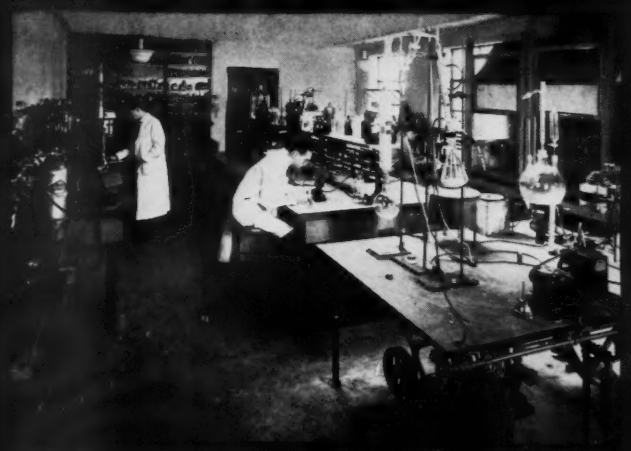
Specific grades to meet your requirements for

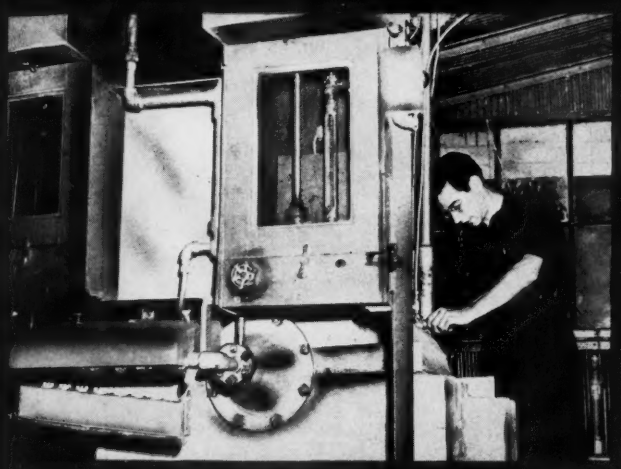
DENTIFRICES
FACE POWDER
ROUGE
TABLETS

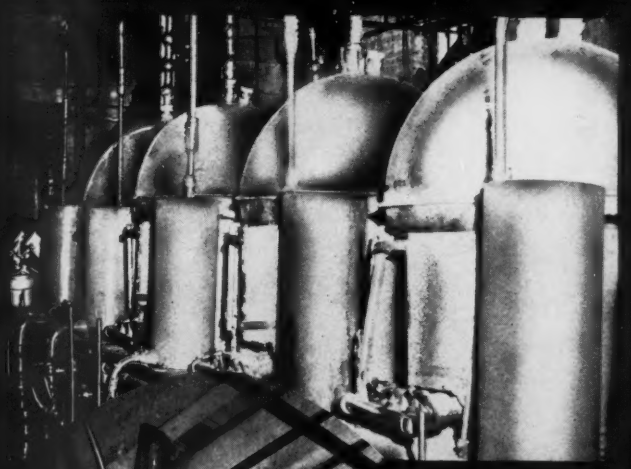
For over fifty years American chemists and drug and cosmetic manufacturers have learned by experience that they can depend on STURGE STANDARD PRECIPITATED CHALK for *Unfailing Uniformity, Unfailing Quality and Unfailing Deliveries.*

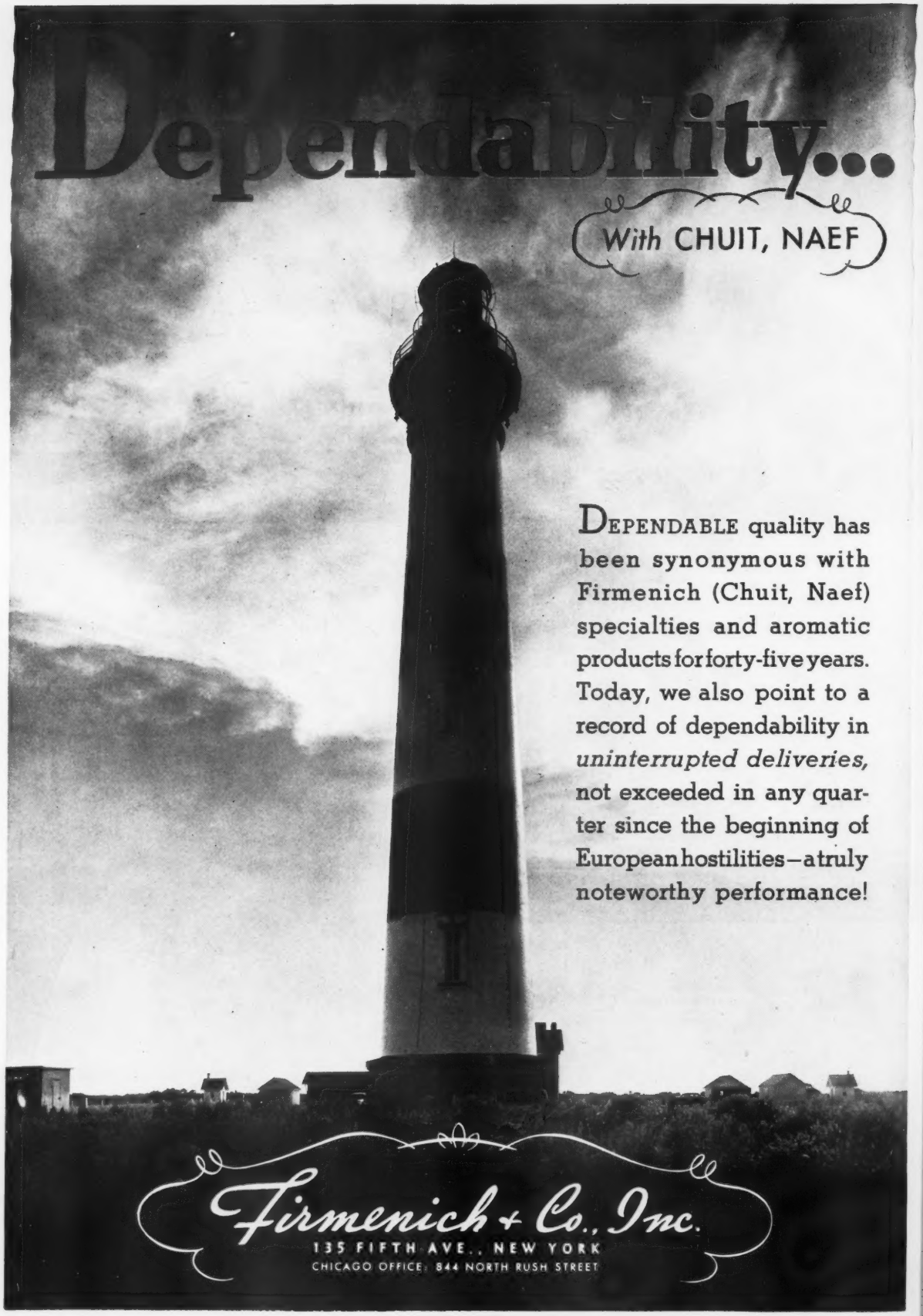
JOHN & E. STURGE
Limited

Distributors:
H. J. BAKER & BRO.
271 Madison Ave. • New York, N. Y.








Dependability...
With CHUIT, NAEF
DEPENDABLE quality has been synonymous with Firmenich (Chuit, Naef) specialties and aromatic products for forty-five years. Today, we also point to a record of dependability in *uninterrupted deliveries,* not exceeded in any quarter since the beginning of European hostilities—a truly noteworthy performance!
Firmenich + Co., Inc.
135 FIFTH AVE., NEW YORK
CHICAGO OFFICE: 844 NORTH RUSH STREET

Colne Returns to England

Leslie Colne, foreign representative of Bronnley Ltd., London, who has been in the United States for the past sixteen months, returned to England on December 5.

Harry Dilzer Retires

Harry F. Dilzer retired from Roger and Gallet, New York, on December 31. He had been representing the line for the last 42 years.

William Mennen Honored

Every employee of the Mennen organization contributed in honoring William G. Mennen on the 25th anniversary of his induction as president of the company.

On behalf of the entire organization, F. S. Dieterich, vice-president and merchandise manager, presented Mr. Mennen, who is a breeder of livestock, with two prize pigs to be raised at his Hideaway Farm in Chester, N. J. A pedigreed sow weighing 525 pounds was christened Antiseptic Oil of Hideaway Farm while a pedigreed boar weighing 300 pounds was named Skin Bracer of Hideaway Farm. Two mounted metal plaques commemorating the event were also given to Mr. Mennen.

Huisking Boys Join Service

Two of Charles L. Huisking's sons have joined the country's armed forces. William W. Huisking, who was born in 1913, became associated with Chas. L. Huisking & Co., Inc., upon his graduation from Notre Dame seven years ago. He has been a director and officer of the company as well as of the Peder Devold Oil Co. and the Santoinne Co. of America. For the past few years he has been in charge of the Huisking essential oil department as well as being personal assistant to his father, president of the company. He joined the U. S. Army immediately after the declaration of war in December.

Richard V. Huisking was born in 1918 and finished his education in Puerto Rico where he went primarily to learn the Spanish language. He joined the company in 1939 and eventually became assistant manager of the Latin American department. He joined the U. S. Navy in July 1941.

Ambler Retires from Merck

The retirement of Jesse H. Ambler, vice-president of Merck & Co., Inc., was announced at the annual dinner of the Quarter Century Club by George W. Merck, president of the company. Mr. Ambler started with Powers & Weightman in Philadelphia on March 12, 1888. He was transferred to St. Louis at the time that branch was opened, and following the merger in 1927 was elected resident vice-president in St. Louis.

Mr. Ambler's fifty-three years of service made him the senior member of the Merck Quarter of a Century Club.

Financial

Norda Increases Shares

Norda Essential Oil & Chemical Co., New York, has filed a certificate with the New York Secretary of State increasing the number of shares of its nonpar capital stock from 6,000 to 16,000 shares.

Rosenthal Now Partnership

H. H. Rosenthal Co., Inc., export-import commission merchant, has been changed to a partnership and the company name is now H. R. Rosenthal Co.

Squibb Net Up Sharply

E. R. Squibb & Sons and its domestic and Canadian subsidiaries report for the quarter ended September 30, 1941, a net profit of $520,237, compared with $396,478 for the September quarter of 1940. Net sales were $7,060,320 against $5,320,652.

Dow Chemical Net Up

Dow Chemical Co. and subsidiaries report for the six months ended November 30, 1941, a net profit of $4,052,370. This is equivalent to $3.13 a common share after deducting $3,139,206 reserve for Federal income and excess profits taxes and $1,226,067 amortization charge. In the corresponding period last year the net profit was $3,585,015, or $3.02 a common share.

Obituaries

Clayton H. Englar

Clayton H. Englar, Pacific coast sales manager for Continental Can Co., died January 2 at San Francisco. He was fifty-six years old.

After graduating from Blue Ridge College, Md., Mr. Englar became affiliated with the Detrick & Harvey Machine Co. in 1904, leaving in 1912 to become associated with Continental Can Co. at Baltimore. as a salesman He advanced rapidly to assistant district sales manager, district sales manager, and assistant manager of sales with headquarters at Baltimore.

In 1934 he was appointed Pacific coast sales manager with headquarters in San Francisco.

Charles L. Senior

Charles L. Senior, vice-president and a director of Florasynth Laboratories, Inc., died December 25 at the St. Elizabeth Hospital, New York, following an illness of two and a half months. He was fifty-two years old.

C. L. SENIOR

Mr. Senior was one of the founders of Florasynth Laboratories and was actively engaged in its business until the time of his death.

He is survived by his widow and two sons, Robert C. and Charles J. Bob Senior was associated with Florasynth Laboratories until his enlistment last February as a member of the 207th Coast Artillery, Anti-Aircraft Division.

Roger L. Church

Roger L. Church, manager of the Cincinnati branch of Owens-Illinois Can Co., died December 13. He was forty years old.

A. H. Van Gorder

A. H. Van Gorder, a vice-president of McKesson & Robbins, Inc., died in Willoughby, Ohio, December 22. He was eighty-nine years old.

Dr. Roger N. Wallach

Dr. Roger N. Wallach, chairman of the board and founder of Sylvania Industrial Corp., New York, died at his home in Briarcliff Manor, N. Y., December 7. He was fifty-nine years of age.

Mrs. W. A. R. Welcke

Cecilia Stepath Welcke, died at her home in Mount Vernon, N. Y., January 1. Mrs. Welcke was the wife of W. A. R. Welcke, vice-president and treasurer of Fritzsche Brothers, Inc.

Santophen 7

A DISINFECTANT ☆ AN ENHANCING AGENT

SPECIFICATIONS

Appearance: Light yellow, semi-crystalline mass

Specific Gravity: 1.088—1.098 (55°C/55°C)

Refractive Index: 1.579—1.589 (55°C)

Crystallizing Point: 40°C min.

USES

1. As a Disinfectant: Santophen 7 is highly effective in hospital and general disinfectants and for cold instrument sterilization. It is easily formulated in aqueous solutions with dispersing agents, such as sulfonated oils and soaps; with caustic soda; with solvents, such as alcohol; and combinations of the foregoing.

2. As an Enhancing Agent: Santophen 7 effectively enhances coal tar and cresylic acid disinfectants. Its effectiveness is in the order of one phenol coefficient unit for each one per cent by weight of Santophen 7 added.

IS THIS WHAT YOU'VE BEEN LOOKING FOR?

If you have been searching for an effective germicide or enhancing agent to improve your present formulas or to replace materials formerly used, it may pay you to check these facts on Santophen 7.

A mixture of ortho- and parabenzylphenol, Santophen 7 is highly toxic to bacteria fungi, algae and protozoa. Clear solutions can be prepared which do not stain or discolor surfaces to which they are applied. Its faint, not unpleasant phenolic odor can easily be masked if desired. It is not corrosive to metals, and its formulations, particularly with soaps, are applicable to cold instrument sterilization.

For samples and full information, write: MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, St. Louis, Mo. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal.

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F.T.C. ACTIVITIES

Aspironal Must Stop

J. D. Jacobs and P. W. Smith, trading as Aspironal Co., Atlanta, are ordered to cease false and misleading advertisements of "Aspironal."

The order prohibits the name "Aspironal" or any other name which simulates aspirin, since Aspironal does not contain aspirin.

The respondents must cease representing that their preparation is a cure or remedy for the common cold, contains an effective quantity of aspirin, or has therapeutic value exceeding that of temporary relief from pain and discomfort. Advertisements must reveal that the preparation should not be used by persons suffering from nausea, vomiting, abdominal pains, or other appendicitis symptoms; provided that if the directions for use contain a warning of the potential dangers present in the use of the preparation such advertisements need contain only the cautionary statement: "Caution, Use Only as Directed."

Fat Reducer

Melvin V. Eisenberg, Irwin Goldberg, Harry Krohner and Seymour Eisenberg, trading as Bentley Co., Mail Order Division, Chicago, are ordered to cease representing that "Fat-O-No" is a safe, simple, easy or effective treatment for obesity or for the reduction of excess fat; that it constitutes a competent fat-reducing remedy; that its purity is guaranteed by an insurance company or that many physicians have recommended it; or causing to be disseminated any advertisements which fail to reveal that the preparation should not be used in cases of nausea, vomiting, abdominal pains or other symptoms of appendicitis; provided, however, that such advertisement need contain only the statement "Caution, Use Only as Directed," if and when the directions for use, wherever they appear in the labeling, contain a warning to the above effect.

The respondents also are ordered to discontinue dissemination of any advertisement which fails to reveal that use of the preparation may result in edema of the lungs, may cause nervousness and irritability because of acceleration of the metabolic processes of the body, and may increase the body temperature and the heart action to a dangerous extent.

Calafo Liquid

Calafo Co., Inc., Los Angeles agrees to cease representing "Calafo Liquid" as being capable of checking the tendency toward attacks of asthma and hay fever and to cease advertisements which fail to reveal that the preparation should not be used by persons suffering from lung disease or chronic cough, goiter or thyroid disease, except upon advice of a physician; that if a skin rash appears its use should be discontinued; that continued use over extended time should be avoided except on competent medical advice; and that the preparation is not intended for use by children; provided, however, that such advertisements need contain only the statement "Caution, Use Only As Directed," if and when the directions for use on the label or in the labeling contain a caution or warning to the same effect.

Arsenic Spring Water

Robert Enrico, trading as Arsenic Spring Water Co., Hot Springs, Ark., agrees to cease representing that his preparation "Arsenic Spring Water" constitutes a remedy or cure, or is indicated as a treatment for diabetes, high blood pressure, constipation, rheumatism, malaria, or liver, stomach, bladder or kidney ailments, or is a tonic or an alterative, or has no equal as a diuretic. The respondent also agrees to cease representing that his product, taken internally, will cleanse the skin, is of therapeutic value for cutaneous diseases, or has a significant laxative effect.

H. V. 222

H. V. Laboratories, Inc., St. Louis, has stipulated to cease representing that "H. V. 222" is a remedy or cure for skin eruptions or skin irritations, skin rash or eczema, or has any value in the treatment of such conditions beyond the relief of the itching associated with them; that it is a cure for or will prevent athlete's foot, will penetrate or kill such of the fungi of athlete's foot as may develop beneath the corneous layer of the unbroken skin, or that in the treatment of athlete's foot it has any beneficial effect upon the tissues deeper than those supplied by the peripheral vascular system beneath an unbroken skin; that it will remove the blisters manifesting the condition known as athlete's foot; that, diluted or undiluted, it kills the germ infection or fungi of athlete's foot in 30 seconds, or in any other definitely stated period of time. The respondent also agrees to cease representing that "H. V. 222" is a panacea, or that its use prevents or stops bleeding or causes coagulation.

Aknasol Skin Lotion

Colloidal Pharmacals, Inc., New York, selling a skin lotion, "Aknasol," has stipulated to cease representing Aknasol "does help" a blemished skin or is a first" aid" for skin blemishes, or otherwise that it is a competent treatment or an effective remedy for "skin blemishes" and may be relied upon to remove, correct or clear up "blemished skin"; and from the use of such general and inclusive terms in any manner having the capacity to convey the belief that the preparation would have therapeutic value in the treatment or elimination of skin blemishes such as moles, warts, freckles, birthmarks or epitheliomas; representing, inferentially or otherwise, by statements or expressions such as "for your son's or daughter's 'adolescent skin' " or "clearing up blemishes so common and embarrassing to adolescents," that the use of the lotion will prevent or overcome skin eruptions due to systemic factors incident to the age of puberty or adolescence; or represening that the preparation is a "valuable aid" or would have any beneficial effect in clearing up or eradicating enlarged skin pores or in toning up the skin, or otherwise, directly or inferentially, that it has remedial or corrective capabilities beyond those properly attributable to a colloidal sulfur lotion.

Orangeine Claims

Kemp & Lane, Incorporated, Le Roy, N. Y., agrees to cease advertisements which fail to reveal that "Orangeine" should not be used in excess of the dosage recommended; that its frequent or continued use may be dangerous, caus-

(*Continued on page 92*)

Staff Allen's

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Character, experience and ability in the important matter of producing Quality Oils

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INDUSTRY'S BOOKS

The Pharmacological Basis of Therapeutics, by Louis Goodman, M.A., M.D., and Alfred Gilman, Ph.D., 1383 pp., The MacMillan Co., New York, Cloth, $12.50.

This is reportedly the "bible" of the Food and Drug Administration, in its drug enforcement of the Federal Food, Drug, and Cosmetic Act. Every recently introduced drug of recognized value is completely discussed as well as the newest information concerning the actions and uses of the older established drugs. All this material is organized so that it is readily accessible, with drugs grouped on a basis of therapeutic uses, and thoroughly indexed with entries for both drugs and diseases. Contents: Sections I—Introduction; II—Central Nervous System Depressants; III—Central Nervous System Stimulants; Local Anesthetics; V—Drugs Acting on Autonomic Effector Cells; VI—Cardiovascular Drugs; VII—Water, Salts and Ions; VIII—Drugs Affecting Urine Formation; IX—Drugs Acting on the Reproductive Organs; X—Gases and Vapors; XI—Heavy Metals and Metalloids; XII—Drugs Acting Locally on the Skin and Mucous Membranes; XIII—Antiseptics, Disinfectants and Drugs Used in the Chemotherapy of Infectious Diseases; XIV—Drugs Acting on the Blood and Blood-Forming Organs; XV—Drugs of Endocrine Origin; XVI—The Vitamins; Appendix: Principles of Prescription Writing; Index.

Practical Methods in Biochemistry, by Frederick C. Koch, Third Ed., 314 pp., Williams & Wilkins Co., Baltimore, Cloth, $2.25.

This laboratory manual is intended to present for medical students the more important qualitative and quantitative chemical aspects of cell constituents, of cell activities and of the composition of blood, secretions, and excretions. To this new Third Edition has been added new methods on uric, lactic, and pyruvic acids. Contents: Part I—The Chemistry of Cell Constituents; Part II—The Chemistry of the Digestive Tract; Part II—Blood and Urine.

Laboratory Guide in Elementary Bacteriology, by M. S. Marshall, 244 pp., Blakiston Co., Phila., $1.75.

This is a manual for laboratory work which is more than a series of clear directions. It presents experimental work in such a way that analysis, thought and interpretation take precedence over the performance of the experiment. It is divided into six sections following the natural breaks in subject matter—(Introductory Technique, Morphology, Physiology, Applied Bacteriology, Serology, and Infection). Each of the 92 experiments is introduced and concluded with paragraphs designed to orient the student to the problem and to stimulate him to thought about its implications.

Fundamentals of Qualitative Chemical Analysis, by R. K. McAlpine, Ph.D., and Byron A. Soule, Sc.D., Second Ed., 375 pp., D. Van Nostrand Co., New York, Cloth, $2.50.

In this revision there has been no fundamental change in the point of view of the authors that the main purpose of a course in Qualitative Analysis is to increase the student's knowledge of inorganic chemistry and to emphasize the necessity of working under controlled conditions in order to carry out desired reactions successfully. Chapter IV has been rewritten with considerable expansion to stress the principles of chemical equilibrium as applied to the problem of analytical separations and sensitivity of reactions. In Chapter V there has been introduced a discussion of difficulties exemplified to the technics of semi-micro qualitative analysis which has become quite popular within the past few years. At the end of each chapter new problems have been added to give the teacher an additional range from which assignments may be made to avoid duplication in successive semesters.

Synopsis of Diseases of the Heart and Arteries, by George R. Herrmann, M.D., Second Ed., Illus., C. V. Mosby Co., St. Louis, 468 pp., Cloth, $5.00.

This guide should foster interest and proficiency in cardio-vascular diagnosis and treatment and should be of help to the hard-pressed student and to the busy practitioner. It is an outline of the most generally accepted facts, developed and arranged in a simple pyramiding pedagogical way. Beginning with fundamental scientific methods, etiologic, anatomic, and physiologic data are built into clinical pictures with therapy at the apex or pinnacle. Contents: Definition—Diagnosis—Criteria; Study of a Patient Suspected of Having Heart Disease; Common Instruments and Methods Used in Clinical Heart Studies; The Radiologic Study of Heart Disease; Electrocardiography; A Classification of the Diseases of the Heart; The Disorders of the Heart's Action; The Disturbances of Myocardial Function; Circulatory Failure; More Detailed Treatment of Congestive Failure With Edema; Anginal Heart Failure; Coronary Occlusion or Theombosis; Bacterial Endocarditis or Valvulitis; Subacute Bacterial Endocarditis; Rheumatic Carditis; Cardiovascular Syphilis; Chronic Cardiac Valvular Disease; Aortic Disease—Regurgitation and Stenosis; Mitral Disease—Mitral Insufficiency and Stenosis; Tricuspid Insufficiency or Incompentency; Congenital Heart Lesions; Pericarditis; Diseases of the Great Vessels; Evaluation of the Added Risks of Cardiovascular Disease for Patients Undergoing Surgical Treatment or Obstetrical Management; Peripheral Vascular Diseases; Military Cardiovascular Examinations and Interpretations.

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Air Mail Payment and The Government, by Francis A. Spencer, 402 pp., The Brookings Institution, Washington, Cloth, $3.

This book is a penetrating and authoritative analysis of the issues and problems encountered in determining the amounts of remuneration going to the airlines for carrying the mails. It traces the relation of these payments to the development of this special class of postal service and to the promotion of commercial air transportation from the first air mail service in 1918 to the present. It is the only book to contain a complete analysis of all the decisions of the Civil Aeronautics Board (and its predecessor Civil Aeronautics Authority) dealing with the adjustment of air mail compensation from its inception to the date the book went to press, and all the decisions of the Interstate Commerce Commission dealing with air carriers from 1935 to 1939. Among the subjects discussed by the author are the distinctive characteristics of air mail transportation which render the fixing of air mail pay different from other types of rate-making, the ever-present "subsidy" controversy and the perennial problems of rate-making. Control of accounting practices, depreciation, the rate base, the rate of return, and the rate scale are given thorough consideration. Also analyzed and evaluated are the various administrative procedures which have been used by the different agencies which have from time to time determined the adjustment of air mail compensation.

Laboratory Manual of Microchemistry, by I. B. Johns, 71 pp., Burgess Publishing Co., Minneapolis, $1.90.

The primary purpose of this book is to bring together in one volume the methods employed in the graduate course in Microanalysis at Iowa State College. These methods are principally those of F. Pregl, whose book "Die Quantitative Organische Mikroanalyse" in its various editions has been in use there since 1923, although several modifications by other analysts have been employed and some new methods included.

The Presidents and Civil Disorder, by Bennett Milton Rich, 235 pp., Brookings Institution, Washington, Cloth, $2.

The threat of civil disorder is ever present. Unpopular laws, political struggles, racial conflicts, and especially labor disputes, have, in times past, resulted in serious rioting and bloodshed. To enforce the peace, many presidents, including Washington, Jackson, Cleveland, and the Roosevelts, have made use of the armed forces of the nation. This study shows how the presidents have handled the major instances of domestic disorder. The Whiskey Insurrection, the Dorr Rebellion, the Great Railroad Riots of 1877, the Pullman Strike, the Bonus Marchers, and the strike at North American Aviation—in these disturbances and others—the role of the president is considered in detail. Emphasis has been placed upon the manner in which the presidents have made use of the Army, together with the methods employed by the armed forces to terminate the disturbances.

Behind The Mask of Medicine, by Miles Atkinson, 348 pp., Charles Scribner's Sons, New York, Cloth, $3.00.

This is not a debunking book. Rather, it is the shrewed observations of a distinguished physician and surgeon, on the part that medicine, in its broadest sense, plays in modern life. It considers intimate problems of doctor-patient relationships; it ranges over pressing questions of medical finance, medical training and medical tradition; it illumines with social as well as scientific vision the role that medicine must pay in man's adaptability to the machine age. When the author gets down to personalities, he examines the doctor from the standpoint of the patient, and the patient from the standpoint of the doctor. There is also much plain speaking here that both doctor and patient need to hear about the overgrowth of specialism, excess in surgery, the plight of the hospitals, fee-splitting and unethical practice. Its pages are crowded with entertaining topics, medicine's facts and fancies, its quackeries and verities, failures and triumphs. Makes good general reading.

The Chemistry of Organic Medicinal Products, by Glenn L. Jenkins, Ph.D., and Walter H. Hartung, John S. Swift Co., Inc., St. Louis, 457 pp., $3.80.

The objective in writing this book has been to organize the large number of organic medicinal compounds according to the accepted scheme of chemical classification. The chemistry of methods of preparation, properties and descriptions of the more important compounds of each class are included. The uses and modes of administration are given so that some idea of the relative importance of the compounds may be gained. In many instances where sufficient date are available, correlations between physiological activity and chemical structure are made. Contents: Chapters I—Hydrocarbons; II—Halogenated Hydrocarbons; III—Hydroxyl Derivatives of Hydrocarbons; IV—Ethers and Peroxides; V—Carbonyl Group; VI—Carboxyl Group; VII—Natural Mixtures; VIII—Amines; IX—Cyanides and Nitro Compounds; X—Sulfur Compounds; XI—Phosphorous, Arsenic and Antimony Compounds; XII—Metallic Derivatives of Organic Compounds; XIII—Heterocycles Containing One Heteroatom; XIV—Heterocycles Containing Two or More Heteroatoms; XV—Stereoisomerism.

Essentials of Dermatology, by Norman Tobias, M.D., 497 pp., Illus., J. B. Lippincott Co., Phila., Cloth. $4.75.

This brief treatise on diseases of the skin was conceived with the idea of placing a handy volume at the disposal of general practitioners and medical students who often have neither time nor inclination to refer to the larger standard dermatological textbooks. The author has attempted to present the growing subject of Dermatology completely and concisely without the sacrifice of detail. Contents: Basic Survey; The Erythema Group; The Eczema Group; Drug Eruptions; The Toxic Bullous Diseases; The Pyodermas; Diseases Due To Vegetable Parasites; Diseases Due to Animal Parasites; Diseases Due to Filtrable Viruses; Diseases Due to Psychic and Nerve Disorders; Lichen Planus; Diseases Due to Physical Agents; The Deep Infective Dermatoses; Tuberculosis of the Skin; Syphilis; Benign Tumors of the Skin; Malignant Growths of the Skin; The Metabolic Dermatoses; The Atrophies of the Skin; Scleroderma and Allied Diseases; The Vascular Diseases of the Skin; Pigmentations; The Cutaneous Lymphoblastomas; The Erythrodermias; Diseases of the Hair and Scalp; Diseases of the Sebaceous Glands; Diseases of the Sweat Glands; Diseases of the Nails; Diseases of the Mucous Membranes; Congenital Disorders: Dermatologic Therapuetics.

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Production Engineer

WAR IS HELL

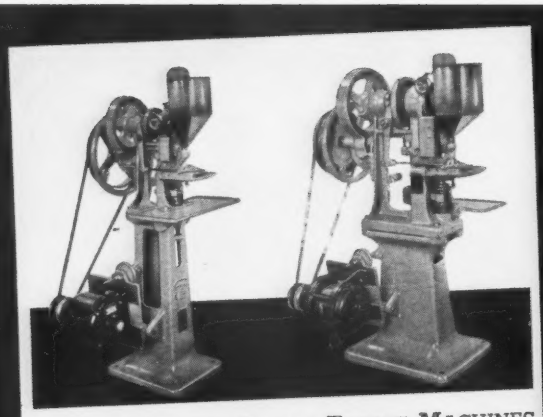
We are for it now, as the English say, and we are going to win. We all know that victory will cost blood, toil, and tears. In this connection I would like you to have a first-hand account of how nonchalantly an Englishman in your own trade takes a beating and comes up with his head "bloody but unbowed." Sometime ago I published in this department a letter from my friend, Jack Halsby, managing director of D.D.D. Co. Ltd. At that time Jack had not had any of Hitler's eggs laid in his lap. The following letter tells a wholly different story and it very vividly illustrates with what invincible courage and vigor the English are carrying on:

"I would like to thank you for the very sympathetic note you gave to us in your feature in "Drug and Cosmetic Industry." We on this side are very glad to know that you take so much interest in the people of this country and that you follow our doings with so much attention and sympathy.

"The last letter which I sent you and which you quoted was rather premature. Although I wrote about the middle of the blitz, we had at that time been very fortunate and had suffered no loss or damage, but only the general inconvenience of working in London during that difficult period. Shortly after I wrote to you, however, our factory in North London received a direct hit from a high explosive bomb and during the great fire raid of December 29th the City office of the D.D.D. Co. was set on fire and quite seriously damaged. It is perhaps unfortunate that both our places should have been damaged. Although a large number of bombs were dropped on London, the area of the City is so tremendous that only a very small proportion of the buildings were actually damaged, so that it is perhaps bad luck that our property received two direct hits, but the fact remains that our office is in the centre of the City of London and our tube factory, which is owned by an Associated Company, is in a working-class district not very far away in the North of London, and as these premises are in danger areas we must, of course, expect to get some damage.

"You may be interested in the effect of bombs on factories and other office buildings. In the case of our City office we were struck by one or more small incendiary bombs. These apparently penetrated the roof and set fire to the stock which we were carrying on our top floor. In spite of the tremendous demands on the fire brigade that night a whole team of firemen spent the whole night playing on our building and on surrounding buildings and they limited our outbreak to the top floor.

"Naturally, all the furniture and stock on this floor were either destroyed or rendered useless, but there was no damage by fire on the other floors. However, a tremendous amount of water poured into the building, penetrating all the other floors and caused a good deal of damage, especially to printed matter, but only a small amount of work was necessary to clear out the other floors and once more make them fit for use. All our files and records which were kept in safes and steel cabinets were intact and our stocks of chemicals and plant were also undamaged. We had taken the precaution of distributing our stock of raw materials and finished goods in various parts of London and we were able to dispatch from these emergency depots until we had cleaned out the building, brought in some more raw materials, and were again in production which required about a week. We soon had a temporary roof on the premises and except for loss of stock and a number of colds and coughs among our staff due to wading about in a foot of water, we suffered no other damage.



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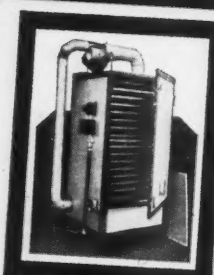
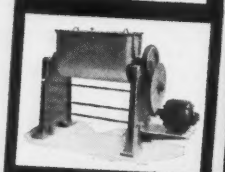
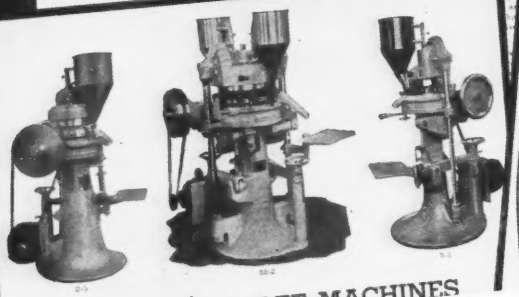


IMPROVED DRYING CLOSET Completely self-contained, electrically-heated dryer, with motor, stirring dampers, etc., as shown . . . either with or without thermostatic control. An ideal shelf dryer for pharmaceutical granulations, salts, fungs and various other products. Improved design reduces drying time 40% or more, reduces heat requirements, assures uniform drying. Steam-heated model also available. Also a smaller 6-shelf model for laboratory use.



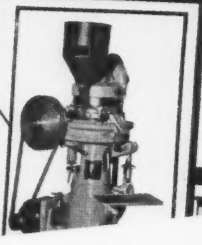
EFFICIENT MIXER. Makes a quick, thorough mix with less granulating liquid . . . which reduces drying time and lowers cost. Excellent for adding colors to granulations . . . interrupted-type spiral agitator makes rapid, thorough mix. Tilts for discharging. Rugged. Can be furnished in special metals. Four sizes, belt or motor driven.

PORTABLE GRANULATOR. Handles 90% of all pharmaceutical granulations, including extract mixtures . . . ideal for efflorescent salts and when supplied with special screen, for breaking down slugs in precompression method of granulating. Forms uniform granules with minimum "fines." Easy to clean. Strongly built, for severe service. Screens easily changed. Smooth, quiet operation. Portable, can be taken to the material. If your department can't keep it busy, take it to another. Available also in larger sizes and in stainless steel or other special metals.



Improved TABLET MACHINES
IN WHICH ARE RETAINED ALL THE
OF STOKES ORIGINAL DESIGN AND

SLUGGING
IS RECOMMENDED FOR
- . . . *troublesome formulas*
- . . . *heat-sensitive formulas*
- . . . *moisture-sensitive formulas*



Slugging or precompressing as a method for preparing granulations for tableting has certain very definite advantages. It simplifies the problem of combining incompatible drugs or chemicals. It eliminates the wet mixing and drying operations that cause trouble in many materials. It reduces both the amount of equipment and the investment necessary to prepare . . . floor space and

Modern Equipment to Increase Your Defense Production

Conserving the nation's health, as well as that of the fighting forces, is vital to our defense program . . . and increased production facilities must be provided to fulfill the requirements of this program. While it is a fact that most of our plant capacity is engaged in direct defense work for government purchasing agencies, we are, nevertheless, most anxious to be of the greatest possible aid to our friends in the Drug Industry.

If you have production problems . . . modern Stokes equipment can help you. We invite consultation . . . to determine possible solutions.

We have just printed a new 48-page catalog on Tablet Compressing Machines . . . illustrating the complete line of Stokes Single Punch and Rotary type machines for pharmaceutical and other industrial applications. It contains specifications, describes advantages of Eccentric, Cam-operated and Rotary machines, gives helpful suggestions on selection of machines and special equipment, etc.

You will need a copy of Catalog 41-T for reference and filing . . . write for it.

F. J. STOKES MACHINE COMPANY
5932 Tabor Road Olney P. O. Philadelphia, Pa.
Representatives in New York, Chicago, Cincinnati, St. Louis, Cleveland, Detroit
Pacific Coast Representative: L. H. Butcher Company, Inc.

F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est. 1895

"In the factory, however, the situation was rather worse. The factory is a fairly large, single story building; part of it quite modern but other parts of it of old construction. The bomb scored a direct hit on our press shop which is, of course, the key operation in the production of collapsible tubes. We think that the bomb must have hit one of the steel trusses and exploded there. This may have been the reason why there was a direct hit by a high explosive bomb there was no serious damage to machinery and only a very small amount of minor damage due to water and falling debris. There was, however, a very considerable amount of damage to the building. The blast from the explosion lifted the whole of the roof. The trusses were anchored at the centre of steel pillars, but at the outer ends where they rested on brick walls they lifted, distorting the trusses, breaking all the glass and destroying the whole of the wall for about half its height. Fortunately, the factory is divided up into separate bays by the brick walls which deflected the blast, and in the other bays the damage was mostly confined to broken glass, although some of the older roofs were strained and distorted. The serious damage was confined to the press shop and as this is quite a large bay there was a considerable amount of repair work to be done.

"As we are engaged on important Government work we were fortunate in obtaining all the assistance we required in rebuilding and we were able to put our contractors on the job at once. They first put up a temporary roof and walls and under this we replaced the wiring, shafting, belting, etc. and within a week we were in partial production and two weeks after were once again in full production. Under this temporary roof the walls were rebuilt, the trusses were put into place again, covered with a semi-permanent roof of timber and felt and a certain amount of glazing was put in. We did not replace the whole of the glazing because this is very vulnerable to damage by blast, shell splinters, etc. so we only put in sufficient glass to give adequate light.

"During the whole of this period, which extended throughout the winter, there was no adequate heating in this portion of the factory and rain and draughts came from all sides. The operators worked in many cases underneath scaffolding on which the bricklayers were working and maintenance was very difficult owing to the large amount of brick dust in the air which caused considerable damage to tools, bearings, etc. We were very proud of the way in which our engineers and operators worked under these very difficult conditions to such an extent, in fact, that our output was very little effected and we were able to fulfil all our government and commercial orders with only very little delay.

"These are only two cases of the difficulties under which English business people work. I could tell you large numbers of other cases where difficulties and dangers were even greater, in which production went on with little or no pause. It is, in fact, surprising how little dislocation was caused even by the intense raids of last year. It is due not only to the inefficiency of German bombing but even more to the ability and determination of British people, Executives, Engineers and Workers alike, who were determined not to be deflected from their purpose by difficulty or by danger. If you had seen the spirit of the British people as I have seen it during the last year, you would, I am sure, be as convinced as I am that nothing can beat the British people and that this country together with its Allies and with the help of the U. S. A. will soon put an end to Nazi tyranny and bring about a better world for everybody.

Sincerely yours,

J. A. Halsby"

NEW PULVERIZER

The Prater Pulverizer Co., 1825 South 55 Avenue, Chicago, have introduced an interesting new industrial type pulverizer which will be of interest to everyone who is confronted with the problem of grinding a great variety of crude drugs. This pulverizer has two features which differentiate it from others on the market. One is that it has an integrally mounted crusher type feeder so that very large chunks are broken down before they get into the bashing chamber of the hammer mill.

The second feature is that it has an air take off which keeps the bashing chamber under suction and removes the product when it is fine enough to pass through the screens. This constantly maintained passage of air through the machine not merely keeps the screens from clogging and hence increases the capacity of the machine, but it also keeps the mill cool. Moreover, it reduces the horsepower required so that the grinding job is done with a fraction of the power normally required.

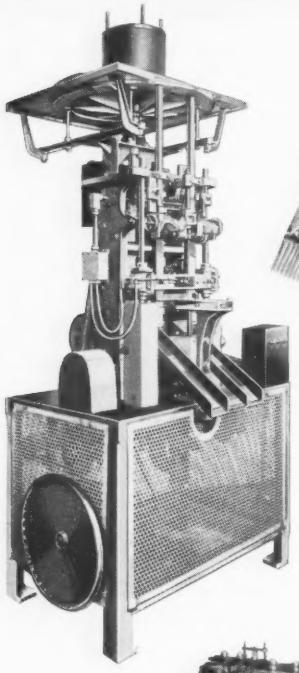
NEW INSULATION

Already the Defense Program is beginning to produce new things. For instance, a new type of insulation called Ferro-Therm has been introduced by the American Flange and Mfg. Co., 30 Rockefeller Plaza, New York, largely at the behest of the Government. This material is used for building refrigerators and for similar work for which cork or other fibrous materials would normally be used. Ferro-Therm is a wall section built up of light gauge steel sheets fastened at intervals around the perimeters in such a way that the sheets are held apart at definite intervals. Hence between each sheet there is a blanket of dead air which serves as the insulant.

Because the Ferro-Therm insulation is built up of steel sheets, it would be natural to assume a high transmission coefficient but such is not the case. It is claimed that the surface of these wall sections will reflect 97 per cent. of radiant heat and that its conductivity is virtually nil. According to the data book of the American Society of Refrigeration Engineers, compara-

FILLING - PACKAGING - WRAPPING MACHINES

speeds to suit your needs- 15-30-60-120 per minute



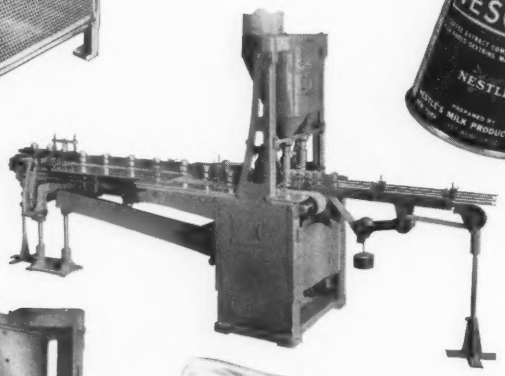
A SPARKLING TRANSPARENT PACKAGE

at lower cost than any other heat-sealed package!

The S & S TRANSWRAP forms—fills—seals—60 or more per minute! Uses "Cellophane", Pliofilm or other heatsealing films from the roll . . . plain or printed. Makes a tight package, yet serrated or notched cut-off makes it very easy and quick to open. Package may be either the pillow type, or with gusset folds. *See it in operation at the Chemical Show!*

ACCURATE FILLING SAVES MATERIAL

lowers cost of finished package



The S & S 2-STATION FILLING MACHINE often has paid its own entire cost in the first year of its operation! And, it's just one of a complete family of fillers that have successfully filled all types of containers with over 150 different kinds of material. *There's one for your problem—and it will pay to ask about it.*

INCREASES SPEED AND REDUCES LABOR

The S & S DUPLEX PACKER AND WEIGHER is very flexible and very accurate. Handles from ½ oz. to 15 lbs. . . . bags, cartons or cannisters . . . 10 to 20 per minute with one operator (including check weighing). Has automatic transfer from No. 1 to No. 2 station and automatic take-away conveyor.

STOKES & SMITH Co.

PACKAGING MACHINERY PAPER BOX MACHINERY

4912 SUMMERDALE AVE., PHILADELPHIA, U. S. A.

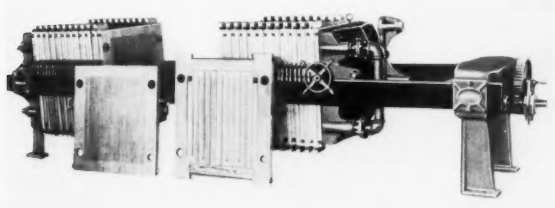
tive heat storage capacity of various kinds of insulating materials is as follows based on one square foot.

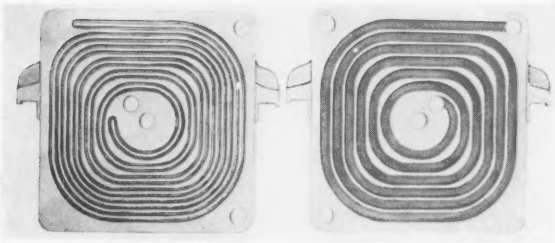
Ferro-Therm . . . . . 0.029 B.T.U.
1″ Insulating Board . . . . . 0.445 B.T.U.
4″ Rock Wool . . . . . 1.20 B.T.U.

You can see from this that the material has virtually no heat storage capacity at all. It is fireproof, corrosion resistant, and moisture-proof. It is claimed that it reduces refrigeration costs radically. However, since it is made entirely of steel, the chances are Uncle Sam is taking most of the company's output for military purposes.

CONTINUOUS THICKENER

At the last Chemical Show one of the most interesting new developments was introduced by T. Shriver Co., 810 Hamilton St., Harrison, N. J. I almost passed the thing up because at first glance it looked exactly like an ordinary plate and frame filter. As a matter of fact, that is all it is—with a difference. The difference is that it is not a filter at all but is a continuous thickener which





utilizes a filtration principle to accomplish its purposes. The plates and frames are entirely different from those of a filter. The plates and frames provide a continuous uninterrupted channel from inlet to outlet. The several plates are hooked together so that a suspension which is to be thickened flows through the labyrinth of one plate and from there to another, eventually reaching the discharge.

The plates are covered by means of filter cloth which forms a partition between the halves of the channels. Hence as the suspension is pumped through the thickener, the clear liquid passes through the cloth into the grooves on the plates and off into a discharge outlet as in any normal filtration operation. The farther the suspension travels, the more of this clear liquid it loses and the thicker the residual suspension becomes. The cake is prevented from building up on the plates because of the turbulence of the incoming suspension which is constantly being pumped through the unit. Pumping velocities range from three to six linear feet per second. Higher velocities are necessary, of course, for slimy materials and in certain abrasive suspensions it may be desirable to use a pump which will pulsate rather than maintain a constant pressure.

The principle of this equipment is so simple that you should have thought of it yourself. A good many of us would have given our left arm for a compact little apparatus like this back in the days when milk of magnesia was made by the double decomposition method.

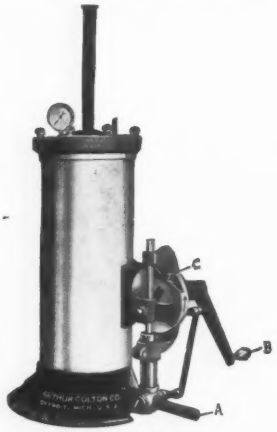
DEFENSE PRODUCTION

Instead of griping about the fact that we cannot get machinery when we want it, we should be grateful for the opportunity the war affords for using our heads to develop substitutes and to make equipment perform operations it was not designed for. The ingenuity exercised in some instances is remarkable. Recently I read an account of a starch plant which was built and put into operation within the last year. Because the venture had no defense significance, the management were unable to get any structural steel so they scouted around among the highways and byways and found some junk yards that hada lot of discarded bridge girders of various kinds. With these and a sufficient quantity of concrete and brick, they soon had a plant. When it came to equipment, however, a similar problem presented itself. They could not get equipment fast enough so they scouted around the automobile junk yards and bought up second hand car and truck engines for use as power sources and they also used various types of transmissions as gear reducers and agitator drives. The lesson is—they got their product into the market on schedule.

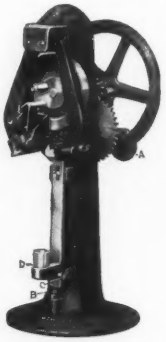
In this difficult time I have at last begun to appreciate the difficulties of the average purchasing agent. Some of them are doing some remarkably fine jobs in locating equipment and equipment substitutes. It is fortunate for those firms who have purchasing agents whose experience in production enables them to suggest and to locate substitute materials and equipment. One purchasing agent I know has had little trouble obtaining his requirements because he seems to know every second hand place, every junk yard, every wholesaler and retailer of hardware. The result is that when you ask him to get something for you, he may not give you precisely what you ask him for, but he will soon dig up something that will do the same job from God knows where.

NEW MIXER

The Eppenbach Co., 45-10 Vernon Boulevard, Long Island City, N. Y., have introduced a new combination mixing unit which strikes me as being pretty doggone good. It is a combination of their high speed Homo-Mixer with a regular inter-acting scraper blade mixing assembly. For making a thing like a soap, for example, the Homo-Mixer provides very high speed agitation for the liquid fats and alkalies. As the soap is formed and begins to set, the paddles and scrapers keep the mix in



No. 3 Hand Paste Filler



Hand Tube Closer

Foot Power Crimper

Colton Hand Operated Machines

No. 3 Collapsible tube filler (hand operated) for tubes up to 1″ x 5½″ long.

Hand operated tube closer made in two sizes and styles to seal tubes with the Colton Clipless Closure or to seal tubes for applying clips.

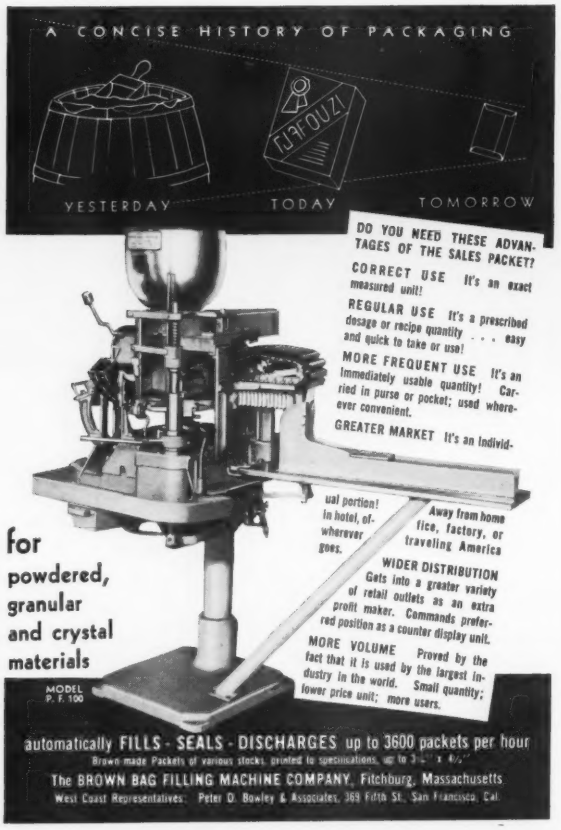
Foot operated crimper for applying final corrugation to the closed end of the Colton Clipless Closure which gives it a decorative appearance as well as greater rigidity to the closed end of tube.

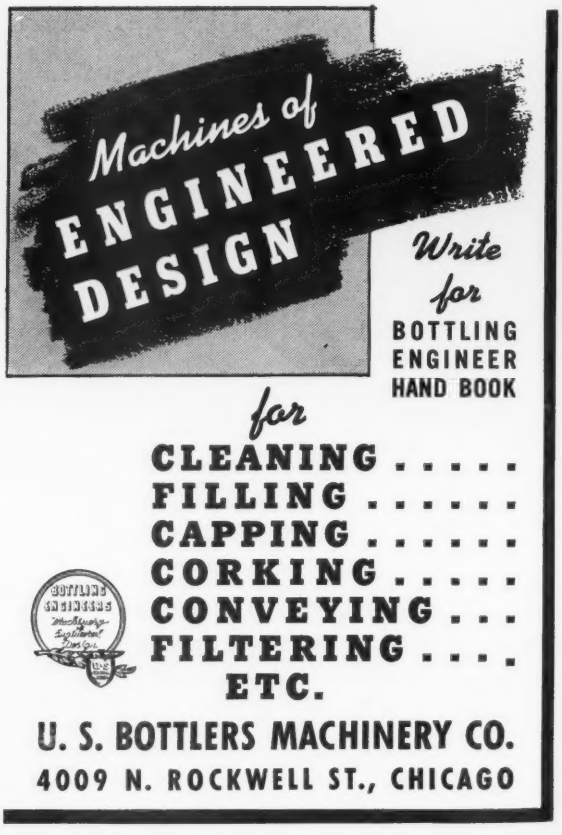
We also furnish this same machine without the crimping jaws for applying clips.

Our catalog No. 11 illustrates a variety of fillers and closers to suit production required. Please make us acquainted with your requirements and capacity, and we will be pleased to recommend machines best suited for your purpose.

ARTHUR COLTON COMPANY

2620 East Jefferson Avenue Established 1884 **Detroit, Michigan, U. S. A.**


A CONCISE HISTORY OF PACKAGING
YESTERDAY
TODAY
TOMORROW
DO YOU NEED THESE ADVANTAGES OF THE SALES PACKET?
CORRECT USE It's an exact measured unit!
REGULAR USE It's a prescribed dosage or recipe quantity . . . easy and quick to take or use!
MORE FREQUENT USE It's an immediately usable quantity! Carried in purse or pocket; used wherever convenient.
GREATER MARKET It's an individual portion! Away from home in hotel, office, factory, or wherever traveling America goes.
WIDER DISTRIBUTION Gets into a greater variety of retail outlets as an extra profit maker. Commands preferred position as a counter display unit.
MORE VOLUME Proved by the fact that it is used by the largest industry in the world. Small quantity; lower price unit; more users.
for powdered, granular and crystal materials
MODEL P. F. 100
automatically FILLS - SEALS - DISCHARGES up to 3600 packets per hour
Brown-made Packets of various stocks, printed to specifications, up to 3" x 4½"
The BROWN BAG FILLING MACHINE COMPANY, Fitchburg, Massachusetts
West Coast Representatives: Peter D. Bowley & Associates, 369 Fifth St., San Francisco, Cal.

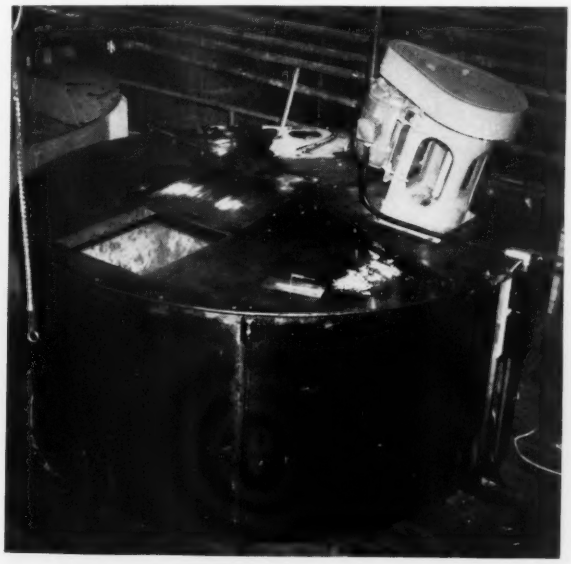


constant motion and keep forcing it back to the center where the Homo-Mixer can pick it up again. Eventually, when the soap or paste has become too thick to be handled by the Homo-mixing head, the agitator blades will continue to knead it and the Homo mixing head will merely spin around harmlessly. I don't know whether the equipment is provided with a clutch so that you can use either the Homo-Mixer or the inter-acting blades, but I should think it should be because you could then use one or the other or both as conditions required.

NEW "LIGHTNIN" MIXER

The announcement of a new vee-belt drive "Lightnin" Top Entering Mixer extends the many advantages of this type of drive to top entering mixers for the first time. Their development will permit an even greater use of top entering propeller type mixers because the new unit can be used over open tanks, closed tanks, pressure or vacuum vessels and for attachment to standard size nozzles.

The unit is proving popular for new and experimental processes since it provides such flexibility of drive. The speed can be regulated merely by changing the sheave



and pulleys or a variable speed pulley can be provided on the motor which allows approximately 25% speed variation. This permits the user to adjust his speed to just the right agitation, or, if the viscosity is increased due to change in specifications of materials, the speed can be increased so as not to overload the motor. Since the speed can be varied from 400 to 600 RPM, this drive is suitable only for propeller type impellers and not for turbines.

The Vee-belt drive on these mixers can be furnished with electrically conducting belts to do away with danger from static electricity in hazardous locations. It can also be furnished with oil resisting belts where necessary.

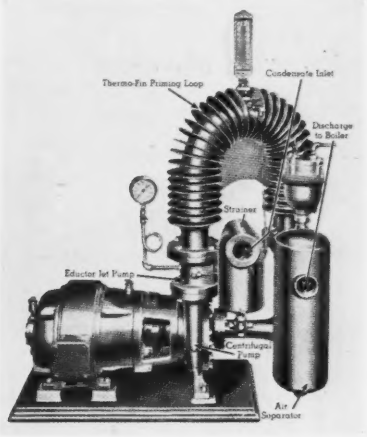
Delivery time is less because a standard horizontal Nema frame motor is used instead of a gear motor. Motors can be standard, semi-enclosed, drip proof or totally enclosed, air jacketed or explosion proof as required for service. Vee-belt feature permits interchange with processor's own motor and enables purchaser to use mixer for a considerable number of different processes.

Shafts and impellers are selected and varied according to the materials being mixed and can be made from any machineable metal or alloy. Units range in size from 1 to 25 H.P. and may be mounted in any desired fashion on any size or shaped tank in minimum time. This equipment is made by Mixing Equipment Co.

CONDENSATE RETURN SYSTEM

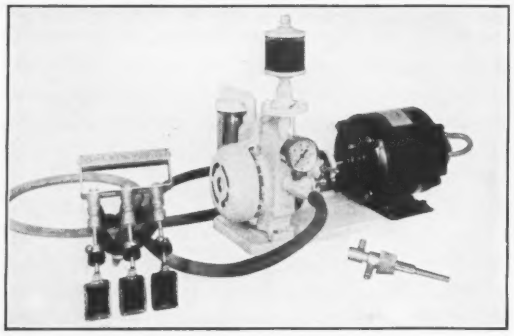
The essential engineering feature of the Cochrane-Becker high-pressure condensate return system, as announced by Cochrane Corporation, Philadelphia, is that its eductor principle of operation insures thorough condensate and air removal from process apparatus, making increased production possible by maintenance of uniformly high temperatures. Then, after expulsion of the air from the closed circuit, the condensate is returned to the boiler at temperatures close to that of process pressure without flash loss and with remarkable fuel savings.

The specially-designed centrifugal pump draws water from the thermo-fin priming loop and discharges



it as a high velocity jet through the jet pump nozzle. This jet, striking the returned hot condensate, induces condensate flow through the mixing tube into the thermo-fin priming loop. The additional volume of the returned condensate introduced into the constantly filled loop results in the discharge of an equal volume through the air separator to the boiler.

The closed circuit from the boiler, through the process equipment, and back to the boiler results in quicker and more uniform heating and hence increased production and improved quality. At the same time flash loss is eliminated, providing 1% fuel saving for each 11-degree temperature gain.



3 **gallons per minute**

is the filling rate of the ERTEL Portable Vacuum Bottle Filler, widely used throughout the drug, cosmetic and toilet preparations trade. It fills any type bottle and absolutely will not drip. Air cooled motor and self-oiling feature are "extras" you get with the ERTEL Portable Vacuum Bottle Filler.

• **WRITE TODAY for your FREE copy of our illustrated catalog, giving complete details on ERTEL Liquid Handling Equipment, which is guaranteed original in design and construction.**

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Manufacturers and Designers of Liquid Handling Equipment

KINGSTON, NEW YORK

New York Show Room, 40 West 48th St.

Here's what you'll like about the new

..."HAGERTY HANDY FILLER"

- Durable
- Simple to operate
- Moderately priced
- Convenient sizes
- Eliminates spilling
- Light construction

The most practical hand filler for creams, lotions and liquids.

Write for illustrated folder and prices

HAGERTY BROS. & CO.

10 Platt Street **New York, N. Y.**

Est. 1849

Why buy several mills when one Mikro would do all your pulverizing?

One Mikro-Pulverizer will handle from a lump to a powder. And as it can be cleaned in 20 to 30 minutes, it will pulverize various materials without much delay. Even different colors can be pulverized, one after the other, without the slightest contamination from materials previously handled.

Quick and thoro cleaning is possible because the Mikro-Pulverizer requires no fans, cyclones, separators or long pipe lines. Consequently, nothing but the mill requires cleaning.

Other advantages are explained in our catalog. Write for a copy and free test grind form.

PULVERIZING MACHINERY COMPANY

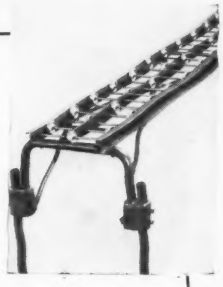
108 Valley Road

Roselle Park, N.J.

Profits *Roll In on* FILCO

EASY-RIDE CONVEYORS

Saves Time and Cost of Handling your Cases and Cartons. Sturdily constructed Curves or Straight lengths easily assembled anywhere in your plant. 10 ft. sections weigh only 75 pounds. Attractively priced.



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ROUGE • COMPACT POWDER

also

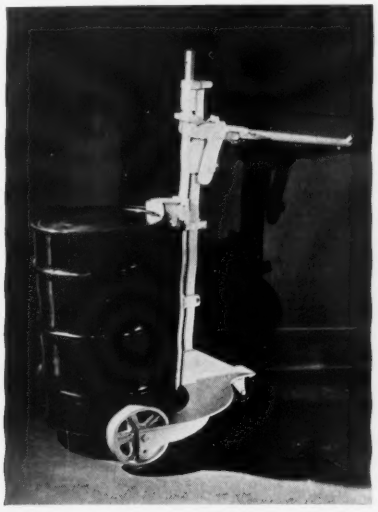
PUNCHES FOR TABLETS

DIES

DRUM TRUCK

A new model has been added to the complete Ernst Magic Drum and Barrel Carrier line by Ernst Magic Carrier Sales Co., 1456 Jefferson Ave., Buffalo, New York, which is called the Little Giant. This model was designed and constructed for handling litherage drums which are principally used as containers of heavy materials.

One man with one hand using an Ernst Magic Carrier can take the place of several men formerly re-



quired to break-over, balance, and move drums. In addition, accidents common to handling loaded containers are prevented by the simple lifting device and self-balancing tri-wheel design built into these Carriers. Combined with these safety features are easier, speedier, work; lower cost factors that are important in stepping up production in materials handling. Copper silicon alloy metal wheels and locking device are available where precaution against explosions is necessary. This new Little Giant model with capacity up to 600 pounds provides a wider range of Ernst Magic Carriers with capacities up to 1500 pounds.

GADGETS: LUBRICATING

The John B. Adt Co., 326 N. Holliday St., Baltimore, Md., manufacture what is known as a casing machine which is used in the tobacco industry for flavoring cut or granulated tobacco. The machine consists of a long hollow rotatable cylinder equipped with sprays so arranged as to spray the flavoring material into the tobacco as it travels through the unit. Such a device might be used for cleaning or lubricating medicinal tablets in large quantities.

GADGETS: TUBE FILLING

It frequently is necessary to fill small quantities of collapsible tubes, ointment tins, and other materials. This can be done by using an automatic Alemite grease gun made by Alemite Corp., 37 West 65 St., New York. In addition, this company makes a portable hopper containing an agitator which is used primarily for large scale lubricating in big plants. This might be adapted as an ointment transporting device where it is desirable to keep the ointments agitated during transportation.

MIXER

The American Bakers Machinery Co., St. Louis, Mo., manufacture a small machine widely used in the bakery industry and known as the Carey emulsifier. This little job comes in six and fourteen gallon sizes and is recommended for the preparation of light emulsions, suspensions, and solutions. In the bakery industry it is used primarily for dispersing yeast in fluids.

AMPOULE EQUIPMENT

Your attention is called to the fact that PerfeKtum Products Co., 300 Fourth Ave., New York, now have a pretty well rounded line of ampoule packaging equipment. They have the very accurate PerfeKtum filler with which you are probably familiar. This filler is, of course, adjustable and it also can be used for filling small vials such as perfume vials.

In addition to this unit they have a rotary ampoule sealer. This also is adjustable and will handle ampoules from 1 cc. to 10 cc. at a rate of 1,000 per hour. A girl is required to feed the ampoules to the spinning-discs. As the head rotates it brings the ampoule into contact with gas flames in which the capsule is spun. The discs spin the ampoule so that it is uniformly rotated while it is in contact with the flame. At the same time a top gripper engages the tip of the ampoule and pulls it off so that the sealed ampoule has a neatly rounded tip.

The next item which is of importance is an ampoule washing machine which will enable an operator to wash about 2,000 ampoules an hour, passing each ampoule through six washing steps so that you can use distilled water, acid solutions, solvents, steam, etc.

The final item which has just recently been introduced to the line is a printing machine for printing labels and code numbers on ampoules and straight sided vials and tubes. Ampoules are fed to this device from a hopper and, after the ampoules are printed, they are discharged automatically. Attachments are available for two color printing.

DUST COLLECTING UNITS

When you have an unusually dusty application such, for example, as handling magnesium oxide, it is necessary to have a dust collection system of unusual efficiency to pick it all up. Therefore, the Hydro-Whirl unit manufactured by Industrial Sheet Metal Works, Detroit, Mich., is exceptionally good. This unit is manufactured in sizes which range from two to four thousand CFM. They are based on the principle of swirling dust in the presence of a water spray to eliminate the dust in the form of a sludge. The washed air can, of course, be returned to the plant, thus eliminating the heat loss which usually occurs in such instances.

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They combine the endurance and smart appearance of the American Defense Forces, to make ideal, *protective* containers for a thousand and one products destined to go to those in the Service.

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SPARE PARTS for EQUIPMENT
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They've been used for items ranging from aspirin to hardware, including watch parts and accessories. They'll serve a *double* purpose in re-use for cigarettes, thread-and-thimble or band-aids.

AND, they'll stand the abuse of pack or pocket in field or camp, with moisture-resistant protection.

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WE ARE a well-known manufacturer of a line of specialty items nationally sold through drug, variety, department, and grocery stores and are anxious to add one or more items to our present line.

The type of products we have in mind would be of small bulk, fairly simple to manufacture, appeal primarily to women, and sell for about a dollar or less. They would have a high rate of consumer consumption, as compared to equipment items. ***We are not interested*** in proprietary medicines, gadgets and knickknacks of little permanent value—or items that would be affected by present defense priorities.

Perhaps the item or items we want are at present part of a national line—or sold only locally in some part of the country—or have never yet been commercially produced—or are just a clever idea in someone's mind. Wherever they are, or whatever they are, just so long as they meet the requirements just mentioned—we would like to hear about them.

All replies will be held in strictest confidence and data will be returned on request. If you would prefer not to have your name or the name of your company known, we suggest you handle all correspondence through your bank or broker, as we are doing.

Please address all letters to F. F. c/o Bankers Trust Company, 16 Wall Street, N. Y. C.

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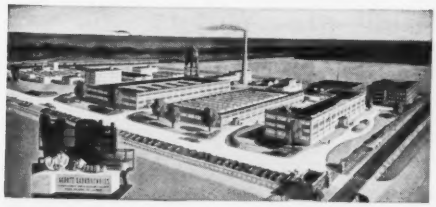

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THE DAYS AHEAD!

THE PAST TWELVE MONTHS have taken their toll of the cosmetic industry. As the year 1941 closed its final pages greater difficulties and hazards arose. The rumors of war became more tangible and finally settled into the actual fact.

Through the stresses and strains of these last trying months the cosmetic industry has gone on doing its utmost to deliver in the face of increasing odds. Some have fallen by the wayside. The survivors face greater difficulties as the bells ring in the New Year. During this trying time, we have learned much regarding the fine spirit of cooperation existing in the industry in which we specialize as manufacturers to the trade.

OUR ORGANIZATION has much to offer to the cosmetic industry for 1942. We have augmented our staff to give you even greater service in the troublesome times which loom on the horizon. We have improved our manufacturing facilities to afford greater efficiency in presenting your product to you. We are better geared now than ever before to produce your present cosmetic item or develop your new ideas. Our complete service to you embraces many phases including research, formulation, testing, medical observation of results, and packaging—all together giving you something different and much to your advantage.

SO, TO OUR MANY FRIENDS whom we have been able to serve during 1941 we promise our continued effort in your behalf during the coming year. To those whom we have not yet had an opportunity to serve, we ask the privilege of helping them to navigate through the troubled waters ahead of us.

AND TO ALL in the cosmetic and proprietary trades, we wish

A prosperous New Year.

Evans Chemetics, Inc.
33 West 46th Street, New York
Telephone Bryant 9-6805

Evans Chemicals Limited
Boreham Wood
Herts, England

Cosmetic Manufacturers with Unique Research Facilities

The COMPOUNDER'S CORNER

LANETTE WAX SX

So far as Lanette Wax SX is concerned, it is certainly one of the most reliable emulsifying agents of the o/w type ever introduced; in addition to which, it possesses so many other desirable properties that one is tempted to regard it not merely as an emulsifying agent but rather as an all-round base for cosmetic creams and "milks", pharmaceutical salves, and many other related products—not all of them, by the way, straightforward emulsions in the generally accepted sense of the term.

Lanette Wax SX, as now standardized, is a partially (about 10 per cent.) sulfated or phosphated mixture of cetyl and stearyl alcohols. It is a whitish wax with a melting point of approximately 50°C., and is a notably useful cosmetic raw material, in that it comprises not only a valuable base—neutral, nonrancidifying and biologically acceptable—but also an emulsifying agent producing neutral and extremely stable emulsions. It is easily self-emulsifiable in water, to form the o/w type of emulsion, and can also easily form o/w emulsions of a very large number of oils, fats, and waxes of all types. Lanette Wax SX emulsions can be adjusted to be perfectly stable to a reasonable pH on either the acid or the alkaline side—this obviously being a property of considerable importance.

The following formula illustrates the remarkable tolerance of Lanette Wax SX creams for materials that normally cause emulsion breakdowns:

Lemon Cream

	parts
Lanette Wax SX	10.0
Stearyl alcohol	4.5
Glycerin	6.0
Water	78.8
Citric acid	0.2
Lemon oil	0.5

Modern-style Hair Creams are also based on the use of Lanette Wax SX:

Modern Hair Creams

Sulphonated Lorol (15% aqueous solution)	50 g.
Mineral oil	30
Petroleum jelly	10
Cetyl/stearyl alcohol	5

Another formula mentioned in the same article is as follows:

Lanette Wax SX	3 g.
Mineral oil	30
Water	67

A little beeswax may also be incorporated as a glossing agent.

There is, in practice, no actual necessity for incorporating Sulphonated Lorol in this type of hair cream; utilized in a correctly balanced formula, Lanette Wax SX will alone suffice.

A rapidly growing demand was experienced for what was known as Hair Reconditioning Creams. Here is a formula originally suggested by K. N. Richardson:

Hair Reconditioning Cream

	parts
Lanette Wax SX	14.0
Cholesterin	0.5
Lecithin	0.5
Vegetable oil or Lanolin	5.0
Adipic or lactic acid	1.0
Water	79.0
Perfume	q.s.

Such creams should be of a wispy texture. Obviously the consistency will vary considerably if one test sample contains 5 per cent. lanolin and another 5 per cent. vegetable oil in its place, but such variation is deliberately intended to offer scope for individual experiment. Another suggestion is to incorporate Wool Wax in place of cholesterin. Lanolin absorption base may likewise be incorporated.

A suggested Day Cream formula consists quite simply of Lanette Wax SX 15 parts, glycerin 7 parts, and water 78 parts. Another such formula, devised by Dr. H. M. Dumont, is as follows:

Day Cream

	parts
Lanette Wax SX	12
Cetyl or stearyl alcohol	5
Mineral oil	4
Lanolin absorption base	3
Titanium dioxide	2
Water	74

According to J. M. Vallance, a matt face cream of good consistency has the following composition:

Matt Face Cream

Lanette Wax SX	5.0 g.
Cetyl alcohol	8.0
Stearic acid	5.5
Spermaceti	2.5
Glycerin	7.5
Titanium dioxide	1.0
Water	70.5

Night Creams (skin-foods), Cleansing Creams (incorporating mineral oil and petroleum jelly) and Powder Creams (similar to Day Creams but containing pigments such as talc or titanium dioxide)—these and many other minor variations on the face cream theme can all be successfully produced with the aid of Lanette Wax SX as a combined base and emulsifying agent.

Stocking-simulating Creams have this in common with Lanette Wax SX—their popularity has led to a demand that still considerably exceeds supply. "Artificial stocking" preparations should be neither oily nor noticeably sticky in

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THE ORIGINAL SYNTHETIC SOLVENT MANUFACTURERS
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character: oil and gum contents must therefore be kept to a minimum—while excess of glycerin (even if this were available) is also to be avoided. A basic formula suitable for experiment might be devised as follows:

Stocking-Simulating Cream

	parts
Lanette Wax SX vanishing (day) cream	62
Gum solution (tragacanth, karaya, etc.)	2
Titanium dioxide	1
China clay, colloidal	3
Face powder base (suntan, etc)	12
Glycerin or substitute	5
Water	15

The pigments need to be carefully and thoroughly dispersed. The final product is best run through a paint or similar mill. Naturally, much will depend upon the weight of the pigments used, the consistency of the cream, and other variable factors.

In so far as possible, earth colors are preferred because of their inert nature and freedom from bleeding. The selection of earths is a wide one, and practically any shade desired can now be obtained with them. Judicious use of organic lakes will give life and brightness to the tints.

According to P. B. Mumford, a milky cream of the so-called "Beauty Milk" type may be prepared as follows:

Beauty Milk

	parts
Liquid paraffin	50
Soft white paraffin	20
Lanette Wax SX	30

(5 per cent. in water—preferably homogenized). Other constituents may, of course, be readily incorporated.

Such formulas as are given above can be subjected to almost infinite modifications, to give scope for individual skill and preferences. *C. H. Allen, S.P.C.*

MINERAL WAXES

According to the degree of refining, refined ozokerites and paraffin waxes range from yellow to pure white, and take the form of opaque, thick slabs or blocks with a feel resembling that of beeswax. Depending upon melting-point, refining, and source, they can be cut with a knife or are hard (somewhat like carnauba wax), when they can be cut only by hacking. They are more tough than brittle. The fracture is generally not flat but irregular, jagged, or semi-conchoidal. The structure is microcrystalline, dense to granular. Small pieces can be kneaded (only by the exercise of some strength in the case of very high-melting grades), when they remain opaque and break off short when an attempt is made to draw them into threads. During kneading they always have a rather tacky feel (*i. e.*, like beeswax); with inferior or oil-rich grades this tackiness may be more pronounced. They turn yellow in a similar way to the paraffin waxes, a process which in both cases has not found adequate explanation. Stability at higher temperatures is much greater than in the case of paraffin wax. Fully refined paraffin wax is produced in colorless, transparent slabs of somewhat greasy feel which readily break with a ringing sound when struck with a hammer. The fracture is generally flat and usually exhibits definite needle crystals, which in the case of high-melting Indian paraffin waxes may attain a considerable size. Apart from the high-melting grades, small pieces of paraffin wax can be readily kneaded between the fingers and drawn out to long threads. They then acquire a slippery feel which is not tacky. They can also then be compressed into glassily transparent and lustrous sheets.

The solubility of the usual types of commercial paraffin waxes in common fat solvents is considerably higher than that of ozokerites. Whereas paraffin waxes (m.p. 50° to 65° C.) are soluble in white spirit at room temperature to the extent of 6 to 3 per cent. (according to their molecular weight, which generally increases with increasing melting-point), ozokerites—considered as a whole—are practically insoluble under the same conditions. Paraffin waxes go entirely into solution (in the above proportions)—*i.e.*, they form clear solutions, while clear ozokerite solutions (at room temperature) generally contain only a few tenths of 1 per cent. of ozokerite. It should be stated, however, that ozokerites are insoluble at room temperature only when considered as a whole, for certain of their constituents are able to go into solution. The proportion which is insoluble under specified conditions is called "true ozokerite." If finely divided (granulated or powdered) ozokerite is brought into petroleum spirit under certain conditions (ozokerite evaluation by determination of the "true ozokerite content"), certain portions go into solution, while the remainder—the "true ozokerite"—absorbs solvent and swells. Paraffin waxes do not exhibit the property of swelling; they go into solution to the exact extent corresponding to their solubility under the given conditions. Any quantity of paraffin wax in excess of the solubility forms an unswollen deposit. *L. Ivanovszky, Manuf. Chem.*

SOLVAMIN

Solvamin—a natural source of riboflavin—is the subject of a bulletin just released by Commercial Solvents. The booklet describes the characteristics of Solvamin and deals briefly with the importance of riboflavin in the human diet. The question and answer section will be of particular interest to food and pharmaceutical manufacturers, who can obtain a copy of the booklet by writing Commercial Solvents Corporation, 17 East 42nd Street, New York, New York.

INDUSTRIAL SKIN CLEANSER

Harsh skin cleansers have frequently been found to be the actual causes of occupational dermatitis which before investigation seemed to have been caused by the chemicals manufactured or handled.

Sulfonated oils, especially sulfonated vegetable oils, such as turkey red oil, have recently been used in the treatment of dermatitis. They emulsify dirt and grease on the skin and help to cleanse it. Being miscible with water they can be used as skin cleaners and are of especial value in that the sulfonated vegetable oils do not defat the skin. Sulfonated petroleum oils are not as good skin cleansers, for they defat the skin.

Synthetic wetting agents, such as the fatty alcohol sulfates, have been used as cleansers for many years. These also defat the skin and may even act as sensitizers when mixed with soap or other foaming agents.

The defatting action of the wetting agents can be counteracted by mixing them with sulfonated animal or vegetable oils. A mixture consisting of sulfonated castor oil having a pH of 7.2 and an oil content of 50%, with one of the wetting agents, Santomerse, Duponol, or Igepon, makes a good cleanser and does not defat the skin. The addition of an alkali such as trisodium phosphate 1-2% or sodium hexametaphosphate 1-2% increases the cleansing powers and only slightly increases its irritant properties. A mild perfume such as lavender or lilac makes the mixture more acceptable.

The preparation is used in the same way as liquid soap. It has been used successfully in two large industrial plants in both of which dermatitis of the hands from harsh skin cleansers had been present for years. *Louis Schwartz, M. D., Public Health Reports, p. 1788, 1941.*

Perfumers Shelf

FIXATIVES IN PERFUMERY

Satisfactory fixation of perfumes of any type is one of the most important prerequisites for successful sales. Modern science has provided the perfume compounder with a great many fixing agents of different types but the successful use of these demands considerable experience and a thorough knowledge of the subject. It is of great importance that the fixation, which is, in effect, a reduction of the speed of evaporation, be under no circumstances achieved at the expense of other qualities. The fixing agents used must be selected in such a way and the quantity used so adjusted that they will cover the entire perfume complex but, however, without deducting from the fresh top-notes. In other words the light delicate notes should be less affected than the base. It is therefore apparent that the first odor effect and the bouquet require different fixing agents than the base. In order to guarantee the uniform effect of the entire mixture, all fixing agents used in a given perfume must be thoroughly adapted to each other as well as to the perfume itself. This can only be achieved if the fixing agents are adjusted to the idiosyncrasies of each particular phase and at the same time connect with the previous and following phases.

The use of heavy and extremely lasting aromatics more or less to the exclusion of lighter fixing agents often completely overpowers many of the attractive notes, rendering the entire perfume compound lifeless and insipid. The same is the case when the percentage of fixing agents used is too high. Synthetics and oils of high boiling point should be used with moderation. The lasting ability is primarily achieved through the activity of fixing agents having what might be called a two directional effect and through the successive effect of several, overlapping fixatives in the different phases, the effectiveness of each of the fixing agents being therefore decidedly enhanced. It will therefore be apparent that the fixatives used should follow and combine all phases of the perfume compound. Realizing this, specialties have been developed by the various raw material houses which provide the perfumer with the required powerful yet correctly adjusted bases which serve not only as fixatives but at the same time enliven and tone up the entire perfume complex.

It can easily be understood that the use of these bases incorporating the results of considerable study and experiments carries with it great advantages otherwise only achieved after years of research. However, often it is for various reasons necessary or required of the perfumer to develop a perfume compound completely from basic materials. In such cases, due to the achievements of modern science, a good many suitable fixatives are now available in a form which makes their use comparatively easy. Of course, and this can not be sufficiently emphasized, it is quite necessary for their successful use that the characteristics and effectiveness of every such agent be thoroughly examined and understood. Among such basic fixing agents the various resinoids as well as extracts from materials such as civet, castoreum, etc., along with compounded resinous fixing agents deserve first attention. Too well known to be mentioned particularly are synthetic fixing agents such as various types of musk, coumarin, etc. However, the following tabulation of various synthetics as well as essential oils according to odor groups might be of interest:

Rose: alpha and beta ionene, methyl ionone, benzyl salicylate, patchouly and sandalwood oils, storax and esters of cinnamic acid.

Jasmine: hydroxy-citronellal, phenylacetic aldehyde, benzyl salicylate, citronellol, rhodinol, civet and ylang ylang oil.

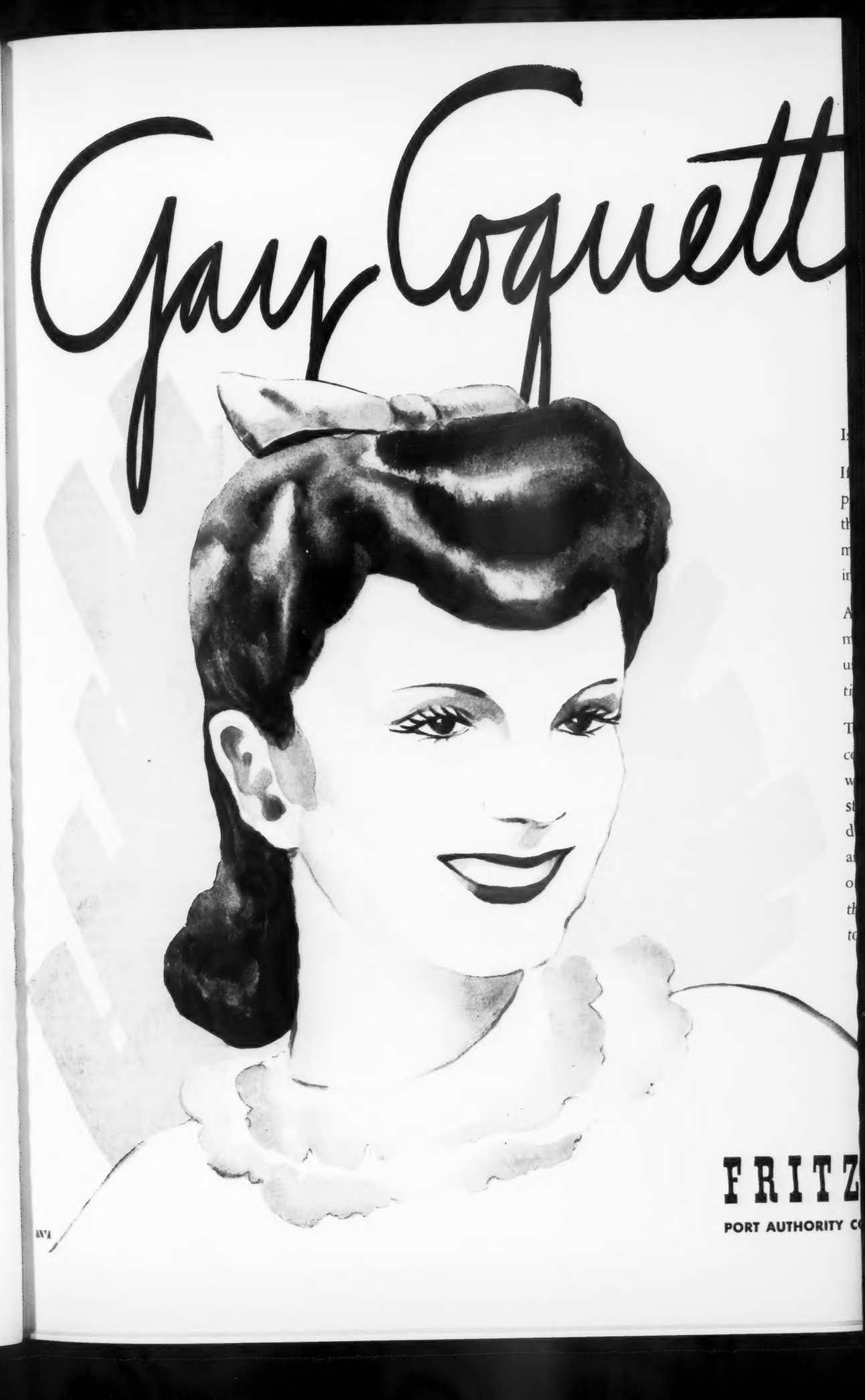
Heliotrope: benzyl cinnamate, cinnamic alcohol, phenylacetic aldehyde, storax, and labdanum.

Lilac: hydroxy-citronellal, phenylacetic aldehyde, alpha amyl cinnamic aldehyde, civet, indol and storax.

Lily of the Valley: hydroxy-citronellal, citronellol, rhodinol, phenylethyl alcohol, alpha ionone, benzyl salicylate, and traces of certain fatty aldehydes. *Schimmel Briefs.*

AMBERGRIS

Ambergris, always rare, will be scarcer still in war-time. With its mysterious faculty of "fixing" any perfume to which it is presented, it has so far defied all efforts to synthesize it and its composition is little understood. Its formation is said to be due to the irritation from the beaks of cuttlefish swallowed by the sperms; but all sperm whales eat large numbers of cuttlefish and yet very few seem to produce ambergris. Some, if not all, of these ambergris calculi are voided by the whales and found floating in the sea or washed ashore. Ham-shaped "parcels" of good quality lumps of 15 to 70 lb. are found lodged in the intestines at whaling stations, while larger pieces may be in the stomach. Possibly only sick whales produce it, as whalers whose stations produce the biggest lumps believe. The other year a consignment of 40 lb. came from the Azores, one of 120 lb. was taken in Norwegian waters in 1931, and a lump of over 336 lb. came to the London market in 1913. In 1716 a lump of 400 lb. was found at St. Helen's and the


Gay Coquett
FRITZ
PORT AUTHORITY C

ette

Is she fragile, feminine, frivolous? Is she petite, personable, pr

If she is, she's the gay coquette and her perfume scents and toilet
provide fitting accompaniment for her personality . . . they shou
the temperament of the user. Odors fashioned for particular typ
more than ordinary blending skill . . . they require artistry, sens
imagination.

And it's this capacity for fine, creative perfuming, plus a knowled
materials based upon the most searching investigations, that ha
us to cater so successfully to manufacturers seeking perfumes
tion and character.

Today, however, the production of such products is limited, an
coquettes, our sophisticates, and our women-folk in general, wi
wait the day when they can again freely choose that fragrance w
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duction facilities of many of the most necessary synthetics sharply
and with importation of some of the rarest and most valuable
oils long since stopped, our laboratories are lending redoubled
the end that, insofar as available materials permit, the needs o
tomers *will be satisfied.*

FRITZSCHE BROTHERS,

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S, Inc.

NEW YORK, N. Y.

THIS IS OUR TASK.....

WELL, here we are entering a New Year and with a full-fledged war on our hands. All of us are in it, one way or another, either on the fighting front or on the home front. Those on the fighting front have the real job of winning the war; those on the home front the job of bending every effort in support of that one and ultimate goal. Keeping up the Country's morale is no small part of that effort and since our industry caters in peacetime to the pleasure and well-being of a large part of our population, its best contribution in the present scheme of things would seem to be to continue functioning to the limits of its capacity in the furtherance of public morale. That our industry will do this . . . that it will try in every way to maintain an effective flow of raw materials . . . that it will keep its factories and productive capacities humming . . . that it will comply without stint to every government policy or dictum . . . that it will do these things as partners in a great effort and for a greater cause, goes without saying. May we all prove equal to our task.

FRITZSCHE BROTHERS, Inc.

BACKGROUND VALUES . . . a PART of the product, APART from th

STANDING OUT in the mind of every buyer are certain suppliers and manufacturers whose products he would accept any time, sight unseen, simply on the strength of a good and reputable name. And to our way of thinking, it's only when things can be bought this way that there's *real* satisfaction in buying. Accordingly, we've tried to place this name of ours on a par with the many other good, substantial houses of the drug, chemical and allied industries whose names today are a by-word for reliability and quality. And like all the others who've attained this goal, we've reached it by long, careful attention to details, by exhaustive research and by the exercise of rigid control in the selection, preparation and handling of all materials identified with our name. It will be the purpose of this series of advertisements to take you "behind the scenes", so to speak, and show you how we operate . . . to acquaint you with FRITZSCHE *background* values which are so much a part of our products, *apart* from their price.

Every oil entering our plant, whether of our own manufacture or from outside sources, is subjected to from six to a dozen or more rigid inspections and tests before it is made available for compounding or offered for sale. Thus, we insure an absolute standard for quality.

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• AROMATIC CHEMICALS •
PERFUME RAW MATERIALS

FRITZSCHE BROTHERS, Inc.

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BRANCH STOCKS

BOSTON CHICAGO LOS ANGELES ST. LOUIS TORONTO, CANADA MEXICO, D. F.

FACTORIES AT CLIFTON, N. J. AND SEILLANS (VAR) FRANCE

Boston Ledger found one of 750 lb. in 1859.

The color may be due to cuttlefish ink or sepia mixed with blood and food refuse, hence the strong unpleasant smell. There is no acknowledged chemical test to identify it, but its smell in alcohol is characteristic. Some specimens have a hard core, others empty pockets and much moisture. The odor when chafed into alcohol is musky, like newly turned earth. The only possible substitute is the squid or octopus (*Elodone moschata*) which the Romans used as the basis of some of their perfumes. In this lies a hint to the ambergris origin from cuttlefish. The Elodone moschatus octopus is of a grey, yellow or yellow-brown color with blackish spots and is found all the year round on sandy or gravelly bottoms, changing its color rapidly when disturbed. It has a strong musky smell, yet is often eaten by the poorer Italians.

Many artificial ambergris odors have been obtained from labdanum, the oleo-resinous leaf secretion of the *Cistus* or rock-rose from the Esterel, west of Cannes, or from *Cupressus sempervirens* (cypress) leaf-oil (*Ambergris*, Stirling and Poucher, 1931) and from methyl nonyl acetic aldehyde (amber aldehyde). Of the biological substitutes just mentioned, Elodone moschata is the common musk octopus or cuttlefish of British shores in summer. Cistus is a very common plant in the hilly districts of Wales, and the cypress is easily cultivated in English shrubberies. A musk odor is also obtainable from the common woodland moschatel plant, the musk beetle, the beaver which is kept on fur farms, and possibly the shrew. In other words, indigenous sources exist—though, from a practical point of view, they have never been given very much attention. *E. Hardy, S.P.C.*

NORFOLK ISLAND PINE OIL

Lindsay H. Briggs, of Auckland University College, New Zealand, contributed to the Transactions of the Society of Chemical Industry, August, 1941, an article on this oil (*Araucaria excelsa*):—

Comparatively little is known of the essential oils of this genus. The oil of *Araucaria Cunninghamii*, Ait., was examined by Baker and Smith, who were able to investigate only 5 grams of oil obtained from 200 lb. of terminal branchlets. The oil apparently consisted largely of the higher-boiling terpenes and bornyl acetate but no substance was identified. Physical and chemical constants of oils obtained from the wood of West Australian species are recorded without, however, indicating the botanical source. The oleo-resins from a number of species of *Araucaria* have been examined by Heckel and Schlagdenhauffen, who have recorded, however, only that they contain considerable amounts of sugars.

Araucaria excelsa, R. Brown, or Norfolk Island pine, endemic to the latter area, has been introduced into New Zealand, where it is grown almost exclusively for ornamental purposes on account of its fine symmetrical beauty. An oil has now been obtained from the terminal branchlets in 0.13 per cent. yield and found to consist mainly of three hydrocarbon components, a terpene, *d*-α-pinene (about 70 per cent.) a levorotatory sesquiterpene (about 9 per cent.: not identified and possibly new) and a diterpene, phyllocladene (about 19 per cent.), while dipentene was also isolated in very small yield. Alcohols, esters, and other oxygenated compounds were entirely absent. *P.E.O.R.*

HALITOSIS

Unless pathologic oral or nasopharyngeal conditions exist, the mouth, the teeth and the pharynx play little or no part in the production of essential halitosis. Nor, for that matter, does the stomach play a part, for it can easily be shown that with a perfectly functioning cardiac sphincter, malodorous substances introduced into the stomach do not, by their mere presence, taint the breath.

Obviously the intestines, large and small, are the critical points, for the mucosa allows the absorption of noxious materials, their transport to the liver and their further migration, apparently by way of the circulation, to the lungs and thence to the breath. That this is the route traversed by garlic can be easily demonstrated. That garlic is and can be carried in the blood stream has been shown by Goodman and Bearg, who demonstrated on the breath of newborn infants the odor of garlic which had been ingested by the mother before delivery. Since the only method of transference would be for substances to pass from the maternal circulation through the placenta to the fetal circulation, it must be assumed that the blood can carry garlic in solution. The lungs function as an organ of excretion, withdrawing volatile materials from the circulating medium and exhaling them on the breath.

Let the hypothesis be made that essential halitosis is the excretion on the breath of malodorous fats, fatty acids or volatile substances resultant from some fault in the digestion or metabolism of fat. The noxious volatile matter is absorbed from the intestinal tract (probably from the lower part of the ileum), is carried to the liver (where insufficient or ineffectual neutralization or detoxification ensues), is partly excreted in the bile but in the main is picked up by the circulating blood, which in traversing the alveoli of the lungs parts with the substance, which is exhaled on the breath. *B. B. Crohn & R. Drosd, J. Am. Med. Assoc. vol. 117, p. 2242.*

ACNE

Sutton believes that an acne lesion, shallow or deep, is a foreign body reaction to oily epidermal material and suggests seborrhea. Comedo and acne vulgaris are analogous to diabetes mellitus. In diabetes, an excess of carbohydrate collects beyond the body's ability to metabolize it. In acne, an excess of lipid collects, provoking pustular foreign body reactions; acne is controllable by reducing lipid intake and enhancing lipid metabolism, if necessary, by giving thyroid. Acne vulgaris in the author's opinion is a pustular lipidosis. A carefully designed low fat diet, under supervision, is effective in diminishing seborrhea. No ill effects in more than 400 patients with acne have followed such diets. The patients had definite relief from fatigability, constipation and mental depression, while at the same time their acne improved. The constitutional symptoms of patients with ordinary acne are due to their relative hypothyroidism. By "relative" the author means the inadequacy of the autochthonous hormone to cope with the quantity of lipid ingested. Constipation is not a cause of acne; patients with acne are constipated for the same reason that they have acne, menstrual difficulties, anemia and "that tired feeling." These are all accompaniments of hypothyroidism. Thyroid is given to all patients. Objective improvement, diminution of seborrhea, is visible in a week. Improvement is obvious in a month, and from three to six months are required for cure. The diet is tentatively broken after the skin has become normal, being enriched particularly in vitamin A, and the patient determines by experiment what his lipid tolerance is. *So. Med. J. vol. 34, p. 1071.*

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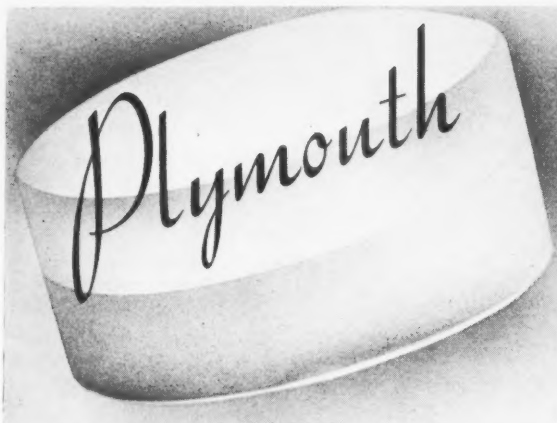

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ADVANCING THERAPY

GRAMICIDIN

Almost miraculous healing of human sores and wounds by a new drug discovered in the soil was reported to the American College of Surgeons.

The drug is gramicidin, and its potency is from 1,000 to 100,000 times greater than sulfanilamide. It was literally unearthed three years ago at the Rockefeller Institute, New York City, by Dr. Rene Dubose.

An idea of its potency is given by the fact that one-millionth of a teaspoonful is sufficient to protect a mouse from 10,000 fatal doses of pneumonia germs.

Today half a dozen of the nation's greatest medical institutions are starting human experiments with it, and the British Government has asked for it to try on war wounded. This report was made by Doctors Charles H. Remmelkamp and Chester S. Keefer of Boston University School of Medicine.

On human beings in Boston gramicidin has cured skin diseases, ulcers, wound infections and infections inside chests. It is not, however, on sale even to physicians, for its limitations and dangers are still largely unknown.

The largest number of nearly miraculous effects have been in the cure of leg ulcers of a type that often do not heal for weeks or years. One of these, which has persisted in spite of treatment for fifteen years, healed in three weeks.

Two young girls with similar ulcers of weeks duration, recovered in two weeks.

One case of chest infection in which pus ran from a chest opening, a condition that sometimes has taken several years to cure, was completely sterilized by gramicidin in a few hours, and the patient recovered.

There is a similar chest infection in rabbits, which is 100 per cent. fatal. Gramicidin saves these animals invariably.

DIETHYLSTILBESTROL

Diethylstilbestrol therapy gave good relief of hypogonadal symptoms to 128 of 150 women (85 per cent.), fair to 18 (12 per cent.), poor to 4 (2.6 per cent.).

Interrupted rather than continuous therapy is preferable for most patients. Diethylstilbestrol 1 mg. daily by mouth for fourteen to twenty days followed by omission of medication for seven to fourteen days was the most successful clinical program of treatment employed in this series.

Complete 4 plus vaginal smear response is not necessary in the majority of cases to insure maximum subjective improvement. The minimal dose giving the best symptomatic response should be the therapeutic dose. In many instances 0.3 to 0.5 mg. daily for two to three weeks is an adequate monthly requirement.

Liver function studies, blood studies and urine studies failed to reveal evidence of toxic effects.

The only unpleasant result of treatment, nausea, occurred much less frequently with interrupted therapy. On continuous treatment nausea occurred in 20 per cent. of cases, on interrupted treatment in only 8.6 per cent.

Authorities have been properly conservative about withholding this potent estrogen from unrestricted use. Sufficient information now is available to conclude that diethylstilbestrol should be released for therapeutic purposes directed by the physician. It should be obtainable only on prescription by the physician. The lowest doses giving good relief of symptoms should be employed. *C. M. MacBryde, D. Castrodale, E. Loeffel, H. Freedman, J.A.M.A., vol. 117, p. 1240.*

ANTICONVULSANT DRUGS

Speculation as to the mechanism of convulsive attacks has been common since the dawn of scientific medicine. Epilepsy is a disorder without apparent demonstrable structural abnormality, which implies a chemical basis for the disease. This conception has received recent statistical confirmation.

It appears that cortical rhythm is normally stabilized by endogenous metabolites and that paroxysmal cortical dysrhythmias of epilepsy are dependent on a deficiency of such metabolites or an abnormal response to them.

There is reason to believe that both the "physiologic" anticonvulsants, such as dextrose, carbon dioxide, pyruvic acid and acetoacetic acid and the synthetic anticonvulsants produce their effect by giving rise to an acid milieu within or about the nerve cells.

The synthetic anticonvulsants, now a large and fairly distinctive group, are predominantly of a composition which suggests that they are broken down by cellular activity—perhaps chiefly in the brain—giving rise to stable products, such as benzoic acid. Their anticonvulsant activity has been shown to be entirely independent of any hypnotic activity. It is suggested that the use of anticonvulsants in the treatment of epilepsy may be regarded as a substitution therapy. Sodium Diphenyl Hydantoinate, the only one of the new synthetic anticonvulsants so far introduced into clinical practice appears superior to

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phenobarbital, formerly the standard.—*T. J. Putnam, and H. H. Merritt, Archives of Neurology and Psychiatry, March, 45: 505-516, 1941.*

CONGO RED

Congo Red in a 1% aqueous solution is a useful, relatively non-toxic chemotherapeutic agent that will often give results in cases where other agents such as the sulfonamides have failed or have proven too toxic.

The dye is related chemically to the sulfonamides. The side effects of these latter drugs are too well known for review here but it has been our experience that the renal damage, nausea and vomiting, blood cell changes of a very dangerous nature, and liver impairment are entirely absent with Congo Red. Death from overdosage in animals is believed to be caused by circulatory collapse as a result of direct cardiac depression but in no instance in humans have we seen any signs of lowering blood pressure, pallor, sweating, etc., indicating circulatory failure or cardiac embarrassment.

At the time of the first report on clinical uses of Congo Red, made 3 years ago, cases of *Streptococcus viridans* septicemia, acute rheumatic fever, erysipelas, puerperal sepsis and low grade infectious arthritis were included. Further observations have borne out the correctness of our earlier report on these diseases and others, more especially pneumonia and peritonitis following ruptured appendix, have been added. In 1 case of cerebral meningitis the dye was injected directly into the spinal canal. The patient responded promptly and recovered.

In a recent study of all types of pneumonia 50 cases were treated exclusively by means of Congo Red in a 1% solution and oxygen. No other therapeutic measures were found necessary and in this series there was not a single death.

Inasmuch as one of the most constant observations with the dye has been a remarkable lowering of temperatures in nearly all types of infection, we instigated a study on cases of ruptured appendix with spreading peritonitis and high fever. So far 25 cases have been successfully treated with the dye and we now administer it routinely following surgery in these cases. An initial dose of 20 cc. is given and repeated daily for 4 or 5 days if necessary.

Two other properties of the dye are of interest. On the one hand its intravenous administration is followed by prompt increase in white blood cells, reaching a peak in 1-2 hours. The drug has also proved useful as a hemostatic agent.

The addition of the dye to the blood stream materially shortens the bleeding and clotting times. In a series of 50 cases, chiefly in children, Congo Red given in doses of 10 and 15 cc. prior to tonsillectomy, was found to affect the clotting time an average of 40 seconds. In some instances coagulation was increased by as much as 2 minutes. Bleeding and clotting times were checked 30 minutes following the administration of the dye. Some effect was found to persist as long as 12 hours later.

As a result of this study we have repeatedly used Congo Red in cases of nose-bleed and in post-operative hemorrhage with very excellent clinical results.

The optimal dose varies considerably with the individual case. It is our practice to give the dye in 20 cc. doses and to repeat daily if necessary until the patient's skin shows a definite reddish tinge. The patient is then given the dye in amounts sufficient to maintain the skin color.

Congo Red is eliminated rather rapidly from the blood stream, practically all traces disappearing within 24 to 48 hours, so we have no hesitancy in giving repeated injections. It is eliminated from the body by way of the kidney and bowel. *W. L. Green, J. Ind. State Med. J. vol. 34, p. 307.*

VITAMIN TOXICITY

None of the vitamins important in human nutrition is considered toxic under ordinary circumstances. Large doses of carotene may lead to carotenemia, but reduction of the dose to an amount equivalent to 5,000 to 10,000 U. S. P. units of vitamin A daily usually leads to a reduction to normal limits of the carotene content of the blood serum. Vitamin A could be administered instead of carotene without any untoward effect. Vitamin B_1 has been thought to possess some untoward effects when administered in amounts of 10 to 20 mg. or more daily. C. A. Mills (Thiamine Overdosage and Toxicity, *The Journal*, May 3, 1941, p. 2101) observed symptoms similar to those obtained in cases of hyperthyroidism, but other investigators who have administered large doses of thiamine hydrochloride to patients have not observed these effects.

Large doses of vitamin C have been reported to have a slight sedative effect, but this is not well established. There is some evidence that moderately large doses of vitamin D are not as beneficial to infants as doses which more nearly meet the requirements for this vitamin, which are about 400 U. S. P. units daily. However, a definitely toxic effect has not been noted with vitamin D except when the substance is given in large doses, such as 50,000 or 100,000 U. S. P. units daily. Administration of large amounts of vitamin D in the form of irradiated ergosterol is known to be beneficial in the treatment of hypoparathyroidism because the blood serum calcium level is raised toward normal. Toxic effects have not been reported for moderate doses of vitamin E or of riboflavin. Many persons who are given 50 mg. or more of nicotinic acid will show peripheral vasodilatation with flushing and sweating, but these effects are not observed if nicotinic acid amide is used. Nicotinic acid occurs in liver largely as the amide of nicotinic acid rather than as the free acid itself.

From the foregoing data there is real reason to administer the vitamins in amounts of the same order of magnitude as the daily dietary requirements.

Overirradiation of ergosterol results in the formation of a toxic substance called toxisterol. The present day manufacture of irradiated ergosterol is generally sufficiently well controlled to guard against this possibility. *J.A.M.A. vol. 117, p. 1575.*

DYSENTERY

The following chemicals and drugs were investigated by Sir Philip Manson-Bahr in the course of an investigation covering 535 cases of amoebic dysentery:—Emetine hydrochloride, emetine bismuth iodide, emetine periodide, auremetine, quinoxyl, stovarsol, carbarsone, enterovioform, rivanol, gavano, *chaparro amargosa* (an extract from the bark of *Castela nicholsoni*), compessine, kurchine hydrochloride and kurchi bismuth iodide, as well as combinations of emetine bismuth iodide, auremetine and emetine periodide with quinoxyl.

The results show that in treating chronic intestinal amoebiasis the principle of "therapia magna sterilisans" must be maintained, small doses of emetine render the condition more difficult to eradicate. The emetine preparations gave satisfactory results, and it was shown that in resistant cases quinoxyl in combination with emetine bismuth iodide produced the most permanent effects. *Brit. Med. J., 1941, ii, 255.*

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THICK BRILLIANTINE: We wish to make a very thick brilliantine for the colored trade—for kinky hair. The product is to be a liquid, based upon castor oil, with various proportions of peanut, avacado, whale and mineral oils. Can you give us any general information as to procedure in this case? Albany.

Since castor oil is not readily miscible with other oils, it is probably advisable for you to limit yourself to castor oil derivatives and the like. We particularly have in mind the complete series of hydrogenated castor oil products. These vary all the way from a thickened oil, through salve-live materials, to hard, brittle waxes. These can be mixed, in varying proportions, with the castor oil to produce oil of almost any desired degree of thickening. A small amount of high viscosity mineral oil may go into the thickened castor oil and will serve to increase luster. Whale oil is also available in hydrogenated form, but we do not know if the products may be made to vary as widely in consistency as those made from castor oil.

LIQUID BUBBLE BATH: We are trying to make a concentrated liquid bubble bath by dissolving the proper foaming ingredient in water. We have experimented and found that filtered solution of the powder is at first clear but turns quite cloudy after standing a while. Any information you may be able to offer in solving this problem will be greatly appreciated. Toronto.

The answer to your problem may well cover the whole field of foaming agents utilized for foam bath preparations, so that we can only hope to cover a few high spots. First, you must decide which of the many products available will give you the amount and quality of bubbles you desire. Many items which are entirely satisfactory as powders cannot be used to make a bubble bath when they are dissolved in water because they lack sufficient solubility to produce concentrated solutions. In order to get satisfactory bubbles it is quite possible that you are now making a practically saturated solution of your foaming agent. In that event, a slight drop of temperature will result in precipitation of some of the solid content from the solution. If your cloudy solution becomes clear again when it is slightly heated, then this type of precipitation is responsible for your difficulty. The answer to the problem is then simple; cool the solution for several days and filter cold. Another approach is the use of another solvent in addition to water in order to keep active ingredients in solution. From five to ten per cent. of alcohol, diethylene glycol ether, etc. may clarify your bubble bath solution and keep it clear. Finally, the cloudiness may not be due merely to precipitation of the original foaming agent, but may be caused by actual decomposition attributable to hydrolysis. Since the foaming compound consists usually of a long, water-insoluble chain to which is connected more or less loosely a water-soluble group, the bond between the two may be affected by the prolonged action of water, resulting in the liberation of the insoluble portion in the free state. This will give rise to precipitation, showing up as cloudiness. In this case, it may be possible to buffer the solution to prevent hydrolysis, but it will probably be more satisfactory to change to another type of foaming agent.

LABELLING: In the November issue of "Drug and Cosmetic Industry," a question was asked regarding the labelling of a package. Do the question and answer refer to drugs, or do they also apply to cosmetics? I expect to market an item which will be made for me by a private label manufacturer. New York.

The answer given refers equally well to both drugs and cosmetics and will be repeated here. The manufacturer's name and address must appear on the most prominent label, which is usually the front label. The address must be such that mail so addressed will reach the manufacturer. If the presumed manufacturer is not actually making the product, the manufacturer's name must be qualified by the words "distributed by," or some similar phrase. An actual manufacturer need not add any qualifying phrase unless he wishes to do so. Weight of the contents should appear on the front label, and directions may appear on either the front or the back label.

FOOT CREAM: We read your recent article on foot powders and found it to be quite interesting. We wish to produce a foot cream that will vanish into the pores when massaged and will give immediate relief to tired or aching feet and also assist in clearing up athlete's foot and local skin irritations. The cream should, if possible, also soften corns and callouses. Brooklyn.

Unfortunately, the cream you are looking for has not yet been invented, since it must include too many different qualities. To fulfill part of your requirements, however, a standard vanishing cream formula, based upon stearic acid, alkali, glycerin, and water will have a cooling, soothing effect if a very small amount of menthol is added. Furthermore, the addition of one of the p-aminobenzoate esters, preferably one with appreciable solubility in the cream, will greatly assist, because of its local anesthetic action, in relieving aching feet

QUESTIONS

NEUTRALIZING SOLUTION: We should appreciate some information as to the composition of the neutralizing solution that is used after the permanent waving operation. St. Louis.

We have never had any occasion to examine a solution intended for the purpose you mention, but from the composition and action of permanent wave solutions we venture the guess that neutralizing solutions are solutions of weak acids. Permanent wave mixtures are alkaline solutions containing more or less non-volatile alkali. After the heat treatment, the hair should be protected from further action of the alkali and this can best be done by the use of a dilute acid rinse. Mild organic acids such as acetic, citric, and tartaric acids are probably most commonly utilized. Shortages in these, however, will undoubtedly bring about greater use of more easily obtainable acids such as, for example, dilute hydrochloric and phosphoric acids. The concentration of these acids in the neutralizing solution need not generally exceed about one per cent.

PROTECTIVE CREAM: I am interested in the preparation of a cream that will protect the skin surface against the action of various types of oily liquids and would appreciate any suggestions you might be able to offer along this line. Chicago.

A protective cream consists of a base that will spread smoothly on and adhere well to the skin surface. This base may or may not contain additional materials that will assist the action, so that a layer is formed which is impermeable to the material that it is desired to keep out. For mechanics' use, for example, the layer formed on the skin must be sufficiently adherent so that it is not rubbed off during work, nor washed off by perspiration. It must not interfere with normal skin functions and should be removable without too much difficulty when desired. Needless to say, it is quite difficult to formulate a preparation with all of these properties, and only certain leads can be given in this place.

In protecting the skin from the action of externally applied substances, the nature of the substance must be considered; if an oil is to be repelled, then the preparation must be oil repellent in composition, that is, it should be free from oil or oil-soluble components or oil solvents. Cold creams are therefore immediately eliminated, while the usual vanishing creams capable of emulsifying oils are very little better. Probably the best type of medium will be based upon gums, either natural or synthetic. Glycerin, quite oil repellent, is also a useful ingredient in making the gum layer more flexible and thereby permitting better adhesion to the skin. Ordinary gums are too soluble in water to remain on the skin very long, and a search should be made for a gum-like material that will dissolve in a mixture of solvents but will not dissolve in water alone. Finally, probably of greater importance than the base is the barrier material. This should be a flaky solid which will not absorb oily materials; along with the base it should form a layer that can be penetrated but not washed off by water (or perspiration), but is completely impermeable to oil and oily materials.

POLISH REMOVER: I am very anxious to make a cream nail polish remover and a pad for the same purpose. I have tried to work with acetone but find that it evaporates too quickly. I should appreciate any suggestions from you in this matter. Los Angeles.

A nail polish remover pad can consist of a fabric disc impregnated with one of the glycol ethers or esters used as lacquer solvents. One can be chosen that has either a moderate or a low evaporation rate and a relatively faint odor. The same compound can be solidified to a creamy or pasty mass by melting it with from 15 to 20 per cent. of beeswax. A small amount of lanolin may be added for presumable emollient effect.

ALCOHOLIC VITAMIN D: Is it possible to produce a liquid product, based on a 25 per cent. alcohol menstruum, with the same vitamin D potency per gram as U.S.P. Cod Liver Oil? What form of vitamin D should be used and how can the preparation be made stable? Montreal.

Vitamin D is generic name representing several closely related sterols, each of which is capable of regulating calcification of the bone structure and preventing rickets. Vitamin D is fat soluble, heat stable, and not readily destroyed by oxidation. Fish liver oils are the best natural source of this vitamin. An active and concentrated form of vitamin D is produced by the irradiation of ergosterol from yeast. From this data, it seems to us that the desired preparation could be made by the use of highly concentrated vitamin D, used in proportions equivalent to U.S.P. Cod Liver Oil, dissolved in alcohol, and diluted with water. Since the vitamin is not especially sensitive to either heat or oxidation, it should be adequately stable. Whether or not the vitamin is soluble in 25 per cent. alcohol must be determined by individual experiment.

F.T.C. Activities

(Continued from page 59)

ing collapse or a dependence on a drug; and that it should neither be taken by nor administered to children; provided, however, that such advertisements need only contain the statement: "Caution, Use Only as Directed," if and when the directions for use, wherever they appear on the label, in the labeling or in both label and labeling, contain a caution or warning to the same effect. The product is advertised for use in relieving headache, neuralgia and the discomforts arising from head colds. The respondent's preparation contains acetanilid.

Hair Dye Statement

Lawrence Richard Bruce, Inc., and Amirol, Inc., of Stamford, Conn., stipulated that, in the sale of a coal tar hair dye, "Amirol Color and Oil Shampoo Treatment," they will cease and desist from disseminating any advertisements which fail conspicuously to reveal the following:

"CAUTION: This product contains ingredients which may cause skin irritation on certain individuals and a preliminary test according to accompanying directions should first be made. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness."

Petrolagar Drops Name

Petrolagar Laboratories, Inc., Chicago, has stipulated that in the dissemination of advertising of "Petrolagar" it will cease use of "Petrolagar" to designate, describe or refer to the preparation and cease use of "Petrolagar" in its corporate or trade name. Such use of the term "Petrolagar," according to the stipulation, may lead the public into the erroneous belief that the product contains a therapeutic amount of agar agar.

Skin Salve

G. J. Tritico, trading as Kas-Mo Remedy Co., Port Arthur, Tex., has been ordered to cease representing that "Kas-Mo Salve" is a cure or remedy for pimples, boils, carbuncles, external eruptions of the skin, chronic sores, irritations caused by bad blood or insect bites, or that the preparation constitutes a competent or effective treatment for any of such conditions; that it has any therapeutic value in the treatment of rectal irritations in excess of furnishing temporary relief, and that use of the preparation will prevent the spread of infection.

Dr. Middlebrook Must Stop

James R. Middlebrook, M.D., doing business as Middlebrook Hospital and Clinic, Del Rio, Tex., has been ordered to cease representing that "Calomel Rhubarb and Colocynth Compound," "Special Formula No. 17831," and "Methenamine (7½ Grains)," separately or in combination as enclosed in a package designated "Special Prostate Package for Home Treatment," will relieve pain or soothe or heal the affected parts involved in kidney, bladder or rectal diseases, or diseases of the prostate gland; that the preparation "Menthenamine (7½ Grains)" is one of the best urinary antiseptic treatments for cleansing infection or inflammation from the kidneys, bladder, prostate or urethral canal; that the preparation designated "Special Formula No. 17831" medicates or penetrates the prostate gland in sufficient quantities by absorption through the tissues to be effective; and that the price at which the "Special Package" is offered for sale constitutes a special, reduced or introductory price when the price is in fact the usual and customary price at which the package is sold by the respondent in the regular course of business.

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1—Burt straight line duplex Automatic Labeler.
1—Pneumatic Scale 6-head Capper, with automatic Cap Feeder.
2—Karl Kiefer Visco Filling Machines.
3—World 1-Ermold semi-automatic Labeling Machines.
1—Cherry-Burrell No. 500 Viscolizer.
10—300 gal. Copper closed tin lined Tanks.
5—300 gal. Pfaudler jacketed Kettles, side m.d., agitators.
3—Single Punch and Rotary Tablet Machines; 1-Colton Rotary No. 2, 5/8"; 1-Stokes Rotary RD No. 1, 1".
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PURCHASING DEPARTMENT

DECEMBER MOVEMENTS

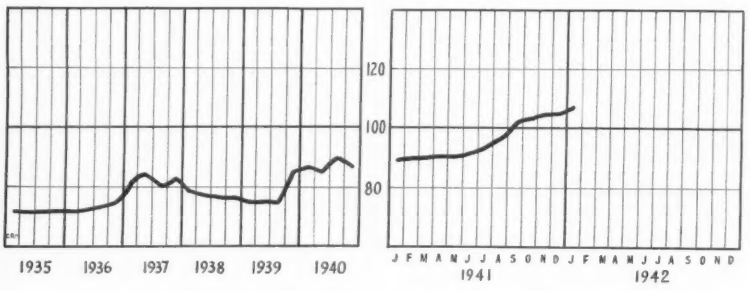
Up

Agar agar 50c
Almond oil, sweet 10c
Anise oil 90c
Balsam Copaiba Para 13c
Tolu 5c
Bay oil 20c
Belladonna leaves 20c
Benzoin gum, Sumatra 14c
Benzyl Acetate 85c
Benzyl Alcohol $1
Bergamot oil $2
Boric acid 1c
Buckthorn bark 15c
Cade oil 5c
Cajuput oil 35c
Camphor, Japanese 45c
Cananga oil, Native $2.50
Rect. $2.50
Candelilla wax 3c
Cardamom oil $4.50
Carnauba wax No. 1 3c
Carvol $3
Cassia oil, Redist. $2.50
Cedar wood oil 23c
Citral $2.25
Citronella oil, Ceylon 20c
Citronella oil, Java 90c
Citronellol 45c
Clove oil 15c
Coriander oil $5
Cresol 1½c
Culvers root 7c
Deer Tongue leaves 1c
Digitalis leaves 10c
Dill oil 50c
Eucalyptol 5c
Galbanum gum 25c
Geraniol 75c
Ginger oil $4
Golden seal root 50c
Hellotropin $1.25
Horehound herb 1c
Hydrangea root 1c
Iceland moss 15c
Isopropyl alcohol 2½c
Lemon grass oil 75c
Lemon peel 3c
Lime oil, dist. $1.25
Mace oil, dist. 30c
Mastic gum 50c
Menthol, Japanese $5
Chinese $5
Nutmeg oil 30c
Oleoresin ginger 25c
Olive oil, edible 15c
Orange oil, dom. 10c
Patchouli oil 75c
Peppermint oil, nat. $2.50
Redist. $2.25
Plantago seed 2c
Quinine (surcharge) 5c
Rhubarb root HD 20c
Rosemary oil 85c
Saffron, Spanish $1
Safrol 60c
Sandalwood oil 75c
Santonin $15
Sassafras bark 3c
Spearmint oil 25c
Strychnine, alkaloid 10c
Sulfate 6c
Thyme oil, red $1.20
white $1.15
Vanilla beans, Mex. cuts $2.50
Mex. whole $2
Witch hazel leaves 1c
Wormseed oil 15c
Wormwood oil 5c

Down

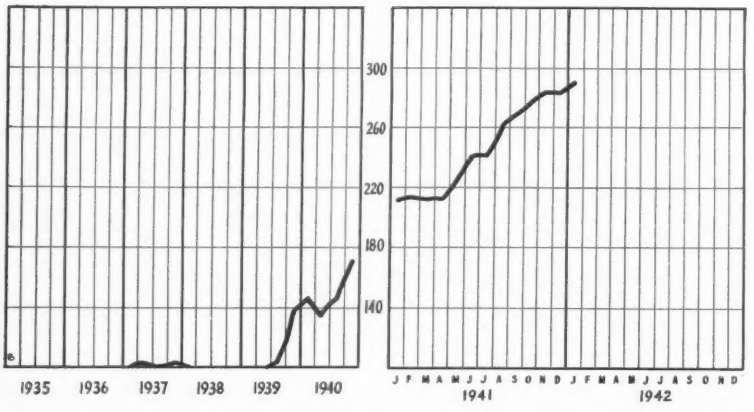
Arnica flowers 50c
Bois de Rose, Braz. 25c
Cumin seed, Morocco ½c
Dandelion root 10c
Gentian root 10c
Henna leaves 5c
Ipecac root 15c
Papain, Powd. 25c
Senega root 3c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



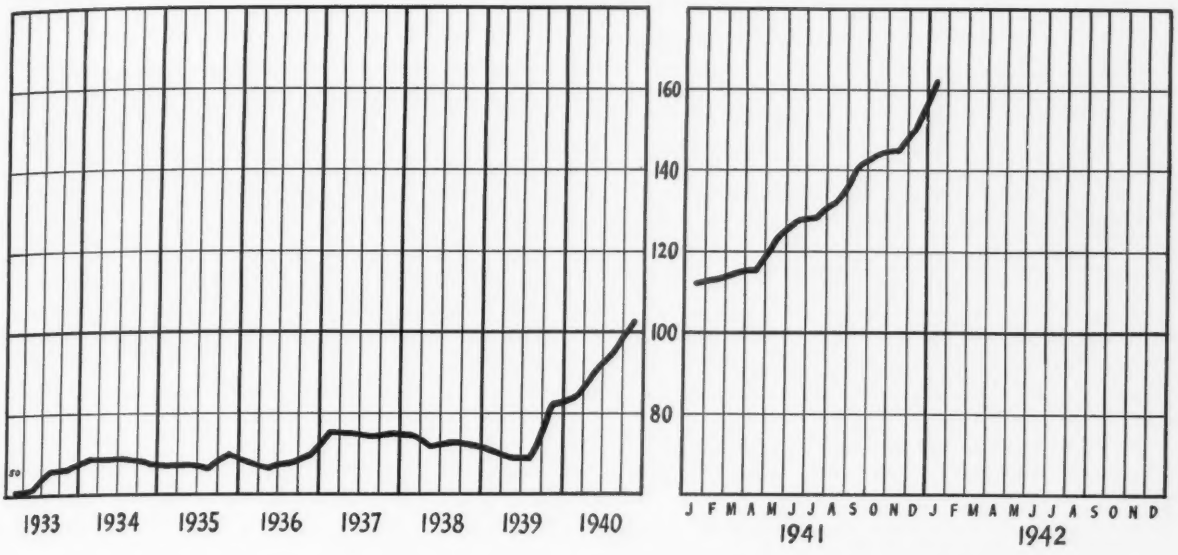
The cosmetic raw materials index advanced to 107.0 from the previous 104.9. Balsam Copaiba rose to 45 cents; Balsam Tolu was up to $1. a pound, candelilla wax rose to 35 cents; natural menthol was sharply higher at $14. Gum arabic was lower at 33 cents a pound. This development in gum arabic was occasioned by the recent arrival of a ship carrying a heavy tonnage of this item.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced to a new high at 290. from the previous 283.3. Agar was up to $3, balsam Tolu advanced to $1, belladonna was higher at $3.45, digitalis went up to 50 cents and rhubarb rose to 80 cents. Arnica declined to $4, ipecac went down to $145. The situation as a whole showed little signs of encouragement to manufacturing consumers either from the supply or price standpoint.

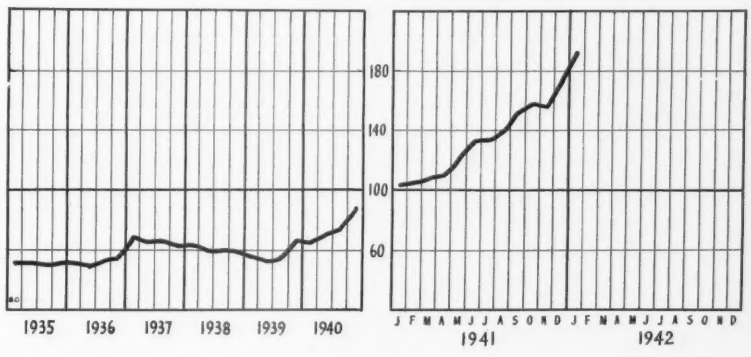
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for December, 1941 increased sharply to 162.6 from the previous 151.2. Developments in the Far East overshadowed all other events and created a situation whereby this market is likely to be deprived of all raw materials from Asia, Japan, the Indies, the Philippines, etc. Needless to say this is a severe blow to a supply position which had, before this additional development, been in a precarious position.

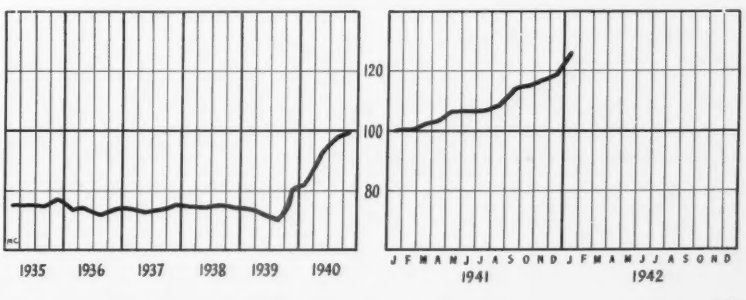
15 Essential Oils—Weighted Price Index. 1926=100.

The essential oil index was up to 192.7 from the previous 173.2. Anise oil rose sharply to $2., bergamot oil was up to $32 and nominal at that price, Cananga was up to $13.50, cassia rose to $10, citronella advanced to $1.10, domestic peppermint oil reached a new high at $7, sandalwood oil was up to $6.25. Bois de Rose declined to $3.75, this representing the only market development favorable to consumers.



15 Medicinal Chemicals—Weighted Price Index. 1926=100.

Medicinal chemicals index advanced to 126.3 from the previous 118.1. Mercury was up to $215 a flask, boric acid advanced to 8½ cents and natural menthol was sharply higher at $14 a pound. The menthol situation was particularly acute. No stocks of natural material from either Japan or China are likely for a long time. Synthetic menthol was purely nominal in view of limited stocks and the situation in Citronella oil.



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• Prices quoted in this section were current on the first of this month.

QUININE

The market for this item was featured by a sharp advance in the surcharge of quinine and other cinchona preparations. In announcing the increase in the surcharge on quinine, manufacturers state that because of higher transportation costs and increases in insurance, it has become necessary to increase the surcharge on all cinchona preparations from 8½c an ounce to 13½c an ounce.

The United States Government has several years' supply of quinine on hand, and manufacturers say that there is no cause for any worry. Both the bark and the quinine salts come from the Netherlands East Indies, and it is believed that every effort will be made by the Dutch Government to get supplies of this vital material through.

Should occasional cargoes of quinine become lost, makers state, there would be no need for apprehension, since there are ample supplies to take care of the trade's requirements for some time.

ALCOHOL

More extensive use of corn in production of ethyl alcohol is expected to result from the sharp boost in the ceiling for this commodity announced by the Office of Price Administration, and it is believed that a number of whisky distilleries will be put to work on ethyl alcohol as an aid to defense, according to trade reports.

The price was boosted to 50c a gallon from 24.5c. OPM officials had previously sought to encourage distillation of ethyl alcohol by whisky companies, but they found that the OPA ceiling was too low to meet costs if the distillers used corn. Companies normally producing ethyl alcohol use molasses, of which the supply is reported to be plentiful in Cuba and Puerto Rico, but they had cut deeply into reserve stocks built up early in the year and arrivals in recent months had been held down by scarcity of tanker space and resulting high cargo rates.

While the high ceilings may encourage greater imports of molasses, traders said the chief benefit from the standpoint of production would be diversion of liquor distilleries to ethyl alcohol. The normal ethyl distillers were said to have been operating at capacity and the boost in ceilings will serve merely to permit them to continue because they will be able to pay more for landed molasses.

Production of ethyl alcohol reached an all time high for November, amounting to 37,541,115 proof gallons in contrast to 23,346,835 proof gallons in November, 1940. Output from July 1 to November 30 reached 177,010,345 proof gallons as against 115,052,581 proof gallons for the same period in 1940, according to data compiled by the Treasury Department of the Bureau of Internal Revenue.

Stocks of ethyl alcohol at the end of November were reported at 8,037,966 proof gallons, as compared with 10,018,410 proof gallons at the end of November, 1940.

MERCURY

The current price of mercury—$215 a flask—is entirely nominal at this writing. According to reports, the total amount of metal being sold on spot represents only approximately 5 per cent. of the entire output. The nominal price quoted above is at New York and must not be confused with the quotations heard in some directions which are on a cost basis.

The production of mercury in the United States last year reached the highest level in more than sixty years. Reflecting the demand for war purposes, the price gradually increased from $162 for a flask of seventy-six pounds in January to $215 in December. Prices were the highest for any sustained period since the first World War.

With output in November and December estimated domestic production of mercury approximated 43,500 flasks, compared with 37,700 in 1940, when prices ranged from $155 to $200. In the first ten months of 1941 official figures place production at 36,300 flasks, an increase of about 20 per cent. over the similar period of 1940.

Domestic consumption rose from 26,600 flasks in all of 1940 to 37,000 flasks in the ten months. Stocks at the end of 1941 were estimated around 11,000 flasks.

With the exception of Mexico, all foreign sources of mercury were closed to the United States. Imports had been negligible more than two years. Mercury is classified by the government as a "strategic" metal and exports are permitted only under license. In 1940 exports were 9,500 flasks but with more severe restrictions foreign shipments this year will probably not total a quarter of that figure.

The government has taken steps to protect its vital needs. In July, it was announced that, in agreement with Mexico, the United States was to purchase "surplus" metal from that country, prior to which time Japan had consistently outbid the United States for such Mexican mercury as was available. Mexico then enacted legislation prohibiting exports except to Western Hemisphere countries. Mexico is at present producing at the rate of approximately 18,000 flasks a year and national consumption is small.

The Bureau of Mines, through field surveys and financial assistance, has opened potential deposits and secured the operation of certain properties. No definite action has been taken yet by the government to stabilize prices and, as a result, it has been possible for some of the marginal mines to resume operations.

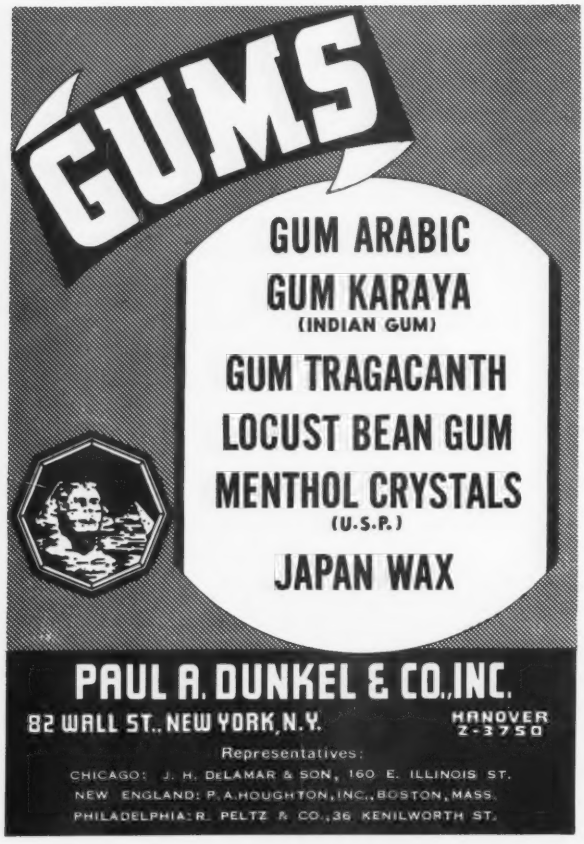
FATS AND OILS

The Office of Production Management took over the direction of distribution of fats and oils in an order affecting more than 1,800 different varieties of the commodities. Under terms of the order, inventories of processors and manufacturers are limited to a ninety days' operating supply.

Among the better known oils and fats affected by the ruling are raw material lard (not as finally processed for home consumption), cotton seed oil, tung oil, linseed oil, soybean oil, coconut oil, palm oil, olive oil, fish and mineral oils, fish liver oil and castor oil. Producers of soaps and paints are large users of the products affected by the order.

Exempted from the order are such "essential" oils as lemon, orange, camphor, citronella, clove, dill, eucalyptus, lime, mustard, pennyroyal, peppermint, pimento and wintergreen. Also exempted from the order are sales of fats and oil products in the finished form, sales of refined edible fats and oils (except olive oil) through wholesale and retail channels and directly to the baking, restaurant, hotel and other cooking trades, and sales of lard intended for human consumption without further processing.

In announcing the order, OPM officials explained the action to conserve supplies and direct the distribution of fats and oils was necessary because of the situation in the Pacific. Normally, they said, 675,000,000 pounds of coconut oil are imported into this country each year from the Far East. Imports of tung oil and of palm oil also are large. The order was made to apply to oils



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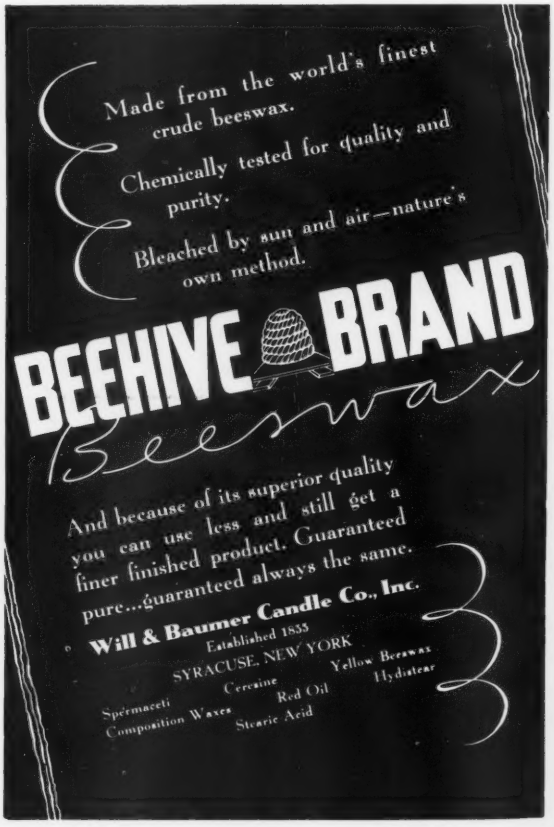
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other than those imported from the Far East, they said, because oils are largely interchangeable and if the order were restricted to the products of Far Eastern origin demand would shift to domestic and available imported oils and cause a shortage in the latter groups.

It was stated that this order is a "stop-gap" regulation which expires January 31, when permanent regulations will be announced.

WAXES

Action to prevent further rise in the price of waxes was taken under date of December 26th last by Leon Henderson, Administrator of the Office of Price Administration.

The O. P. A. head requested that no sales of carnauba, beeswax, candelilla and ouricury, which comprise 96 per cent of the vegetable waxes consumed in this country, be made at prices higher than the f.o.b. New York prices prevailing December 18, 1941.

At the same time, consumer importers were notified of the action, and requested not to make purchases for import at prices in excess of foreign import prices prevailing on the same date.

Mr. Henderson stated that the steps taken were designed to halt further speculative increases, pending the consideration of a formal schedule setting maximum prices.

ZINC OXIDE

A list of maximum prices for all grades of zinc oxides, effective January 1, 1942, to which producers will be asked to agree individually was made public under date of December 15 last by the administrator of OPA.

The OPA approved ceiling prices per pound for the various grades of zinc oxide delivered in bags in carload lots as follows: lead-free American process oxide, 7.25%. Leaded zinc oxides containing 35 per cent. or more lead 6.75c. Leaded zinc oxides containing less than 35 per cent. lead 7.125c. Lead-free French process oxides, other than U.S.P., made from slab zinc or secondary metal (including any oxides made partly from slab zinc, partly from secondary metal) 9.50c.

To determine maximum prices for any other oxides which customarily have sold below the price of lead-free American process oxide, producers should deduct from the new "American process" price a differential at least as large as that which prevailed on October 1, 1941.

To the foregoing maximum prices may be added ¼c a pound for less-than-carload lots. For oxides sold in barrels, ¼c a pound may be added to any of the prices.

IODINE

Despite two years of history-making iodine consumption in the pharmaceutical, animal feeding, and industrial fields and use of considerably more than 1,000,000 pounds of crude iodine during the year ended June 30, there's more where it came from.

Iodine is a product under no priority control in a day when research men are searching for substitutes for those unnumbered items not to be had "for love or money." Many of them are studying the possibilities of iodine, and the Iodine Educational Bureau, New York, is cooperating at top speed.

TIN

With the United States dependent upon imports for tin, the question of adequate supplies, especially if the war should last a long period, will be one of the difficult problems to confront government authorities in Washington. In recent years the United States has obtained about 90 per cent. of its tin supplies from the Far East, but until the situation in the Pacific has been clarified shipments from that area will be small, if any.

Although precisely what amount of tin has been accumulated here is not known, the consensus in the trade is that there is enough to supply normal needs for a little more than a year. This does not include 25,000 long tons of the metal contained in Bolivian ore that has arrived at Texas City, Texas, where the United States Government has under construction a smelter capable of producing 30,000 long tons yearly.

At the beginning of 1941 it was estimated that there were about 78,000 long tons of tin in the United States, of which 56,000 were held by private consumers and the rest by the government through the Metals Reserve Company. Up to Nov. 1, imports for 1941 amounted to 128,000 tons. Arrivals since then probably amounted to at least 7,000 tons.

As consumption for the full year is placed at 100,000 tons, tin stocks in the United States at the close of last year were about 113,000 tons, or enough at the heavy rate of consumption prevailing throughout 1941 to last about thirteen and one-half months. In 1940 tin consumption in the United States amounted to only 74,114 tons, at which rate present stocks would last for about nineteen months.

An analysis of consumption for 1940 shows that 38,964 tons were used in the manufacture of tin plate, 4,120 for babbitt metal, 11,430 for soldier, 5,530 for bronze, 5,370 for tubes and foil and 8,700 for other uses.

PEPPERMINT OIL

Advisability of establishing maximum prices for oil of peppermint, which has almost doubled in price since mid-November, will be discussed by the Office of Price Administration at a meeting with growers of mint, representative oil dealers and consumers in Washington on January 13, Leon Henderson, administrator disclosed.

Notice of the meeting has been given to agricultural extension directors in the principal commercial mint growing states of Indiana, Michigan, Ohio, California, Oregon and Washington in order that they may notify mint growers in their respective localities, it was stated.

Oil of peppermint is distilled from the common mint plant. It is used extensively in pharmaceuticals, dentifrices, chewing gum and confections. Prices quoted by dealers have risen from about $3.90 a pound in mid-November to about $7.50 per pound at present, OPA reported.

SPAIN

Cancellation of Spanish sailings was immediately reflected in a number of items in the botanical drug market during the trading period under review. Items affected included saffron, psyllium seed, ergot, licorice root, thyme and sage. Most houses were reluctant to sell additional quantities and it is expected that much higher prices will have to be paid in order to secure small lots remaining unsold.

CARNAUBA WAX

Throughout 1941 there was a heavy demand for carnauba wax and prices have risen materially. Stocks of wax in Brazil were reduced last summer by heavy purchases, but the new crop which came on the market last September was very large. With European countries out of the market, larger quantities are available for shipment to the United States. Imports of the wax have continued to increase, registering a 32 per cent. gain for the first nine months.

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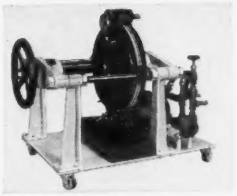

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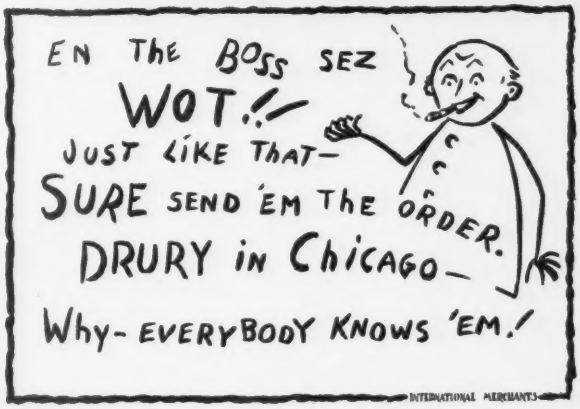

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